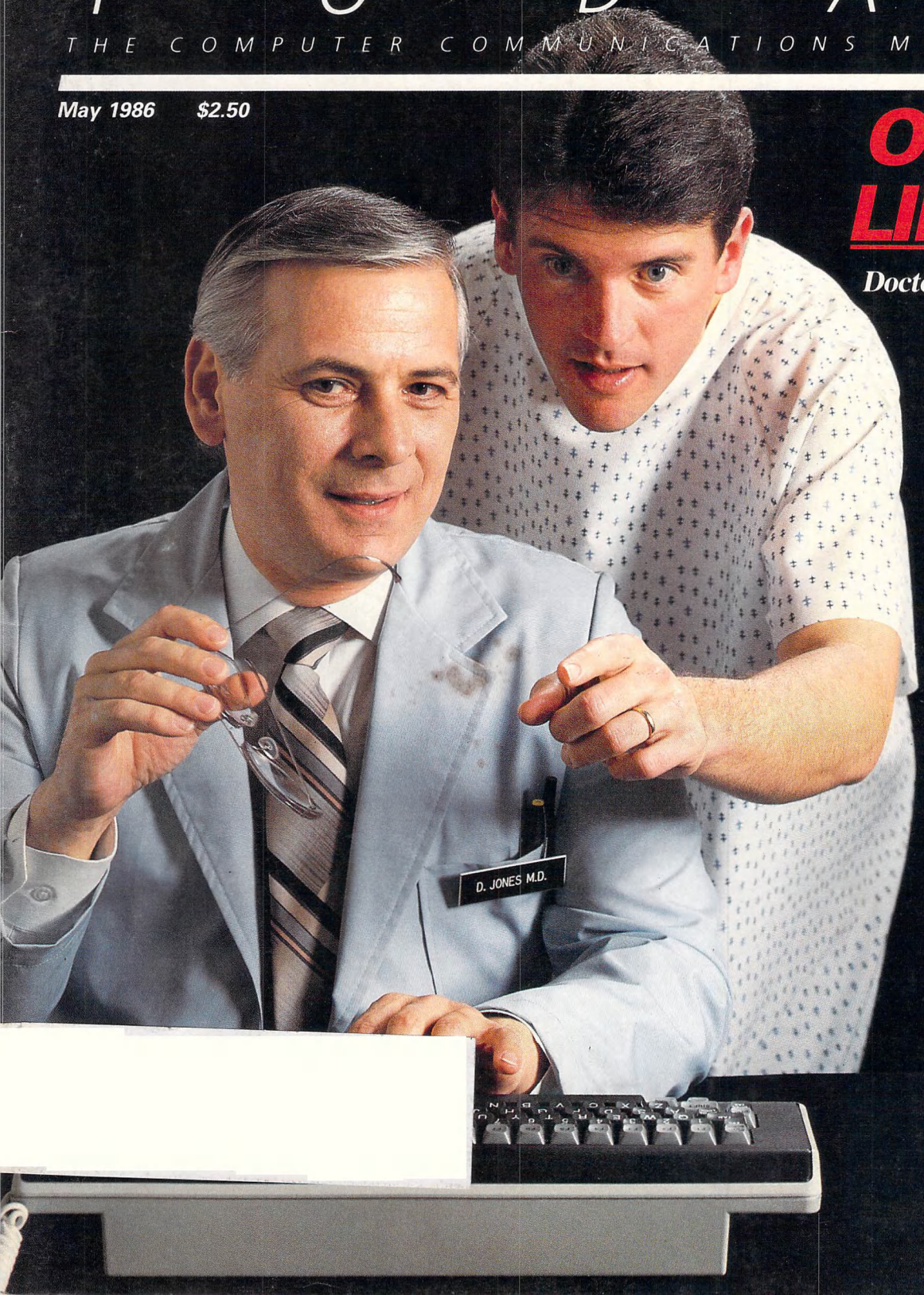
A COMPUSERVE PUBLICATION PRINTED MONTHLY/ONLINE DAILY

ONLINE TODAY

THE COMPUTER COMMUNICATIONS MAGAZINE

May 1986 $2.50



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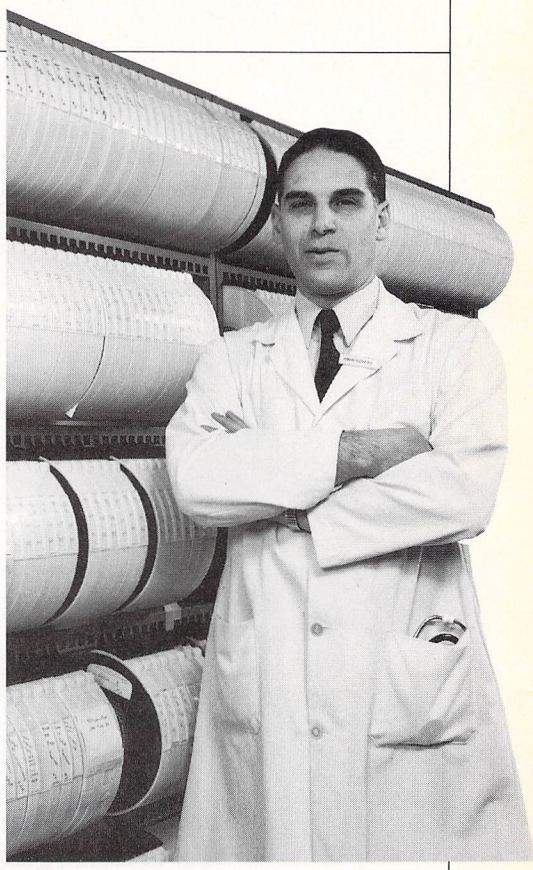

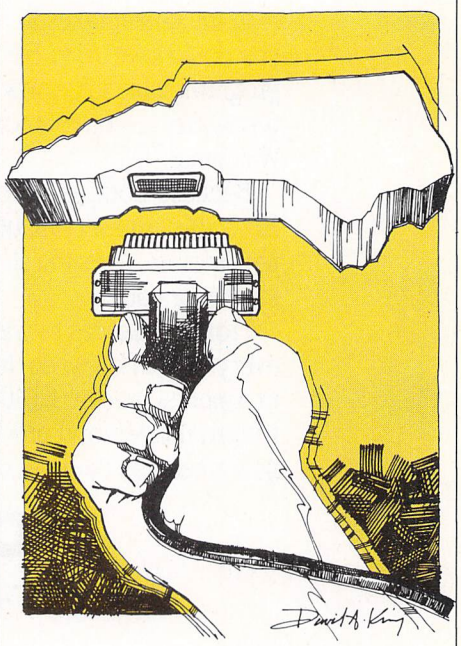

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BPA Membership
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In rural Maine, the Gouldsboro Clinic prescribed a new medication for hypertension a full year before the Food and Drug Administration allowed pharmaceutical firms to advertise its availability, according to John C. O'Brien, a physician's assistant who relies on PaperChase for rapid access to medical information. PaperChase, a CompuServe service, allows users to search the National Library of Medicine's Medline database without having to use complex command sequences.

What happened at the Gouldsboro Clinic is an example of how videotex is changing the way doctors practice medicine. However, it doesn't stop there. Consumers are accessing online health services, such as the Rare Disease Database and the HealthNet Reference Library to learn more about diseases and even alert physicians to new treatments.

Through the Health Forum, consumers converse with each other and with physicians about topics ranging from glaucoma surgery to allergy remedies. The forum sponsors a weekly online Alcoholics Anonymous meeting complete with a 24-hour support service and has conducted an online weight loss group. "The interactive nature of our forum is its strongest feature," says Forum Administrator Bob Walter.

Contributing Editor Cathryn Conroy examines the impact of online communications on the practice of medicine in this month's cover story, "Online Lifeline," beginning on page 14.

* * *

A new online research tool called IQuest is now available, giving CompuServe subscribers a single point of access to more than 700 databases — and you don't have to be a professional researcher to use it. On-screen prompts lead you through a few simple steps that are the same regardless of which database is searched. Read all about it starting on page 30 and in the special eight-page insert.

In celebration of National Information Month, another new service, Information USA, offers subscribers free access to The Electronic Answer Man, an online hotline to information published by the Federal Government. Find out about it, as well as the Directory of Public Officials and the FBI 10 Most Wanted Fugitives database, in the Update section.

Douglas G. Branstetter
Editor

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ELECTRONIC EDITION

Online Today Electronic Edition provides daily-updated computer and information industry news, coverage of CompuServe services, commentary, computer product reviews and more. To access the *Electronic Edition*, enter GO OLT at any CompuServe prompt. Once inside OLT, simply enter GO and the page number (e.g., GO 90) to navigate the database. Following is a list of key pages in OLT to help you directly access the information you want without using menus:

DAILY HEADLINES

GO OLT **A GO-page directory** *of the day's top computer industry news and a summary of key OLT page numbers.*

DAILY NEWS

OLT-160 **The Monitor Daily News** *main menu. Lists all Monitor news departments.*

OLT-90 **Today's computer and information industry news.** *Updated at least three times daily, seven days a week, including holidays.*

OLT-20 **The current week's Monitor news**, *displayed on a five-day plus weekend menu.*

OLT-130 **Behind the Screens**SM. *A column of computer and information industry news, rumor and gossip. Updated daily.*

COMPUSERVE UPDATE

OLT-50 **CompuServe Update main menu.** *Lists all CompuServe news departments.*

OLT-70 **What's New on CompuServe.** *A list of the current week's new products and services on CompuServe. For a month backlog of What's New columns, enter GO NEW and choose "Previous Weeks" from the menu.*

OLT-80 **CompuServe Community News.** *CompuServe's daily updated "local news" of people and events on the Information Service.*

OLT-120 **Forum Conference Schedules.** *A complete listing of all forum (special interest group) live conference activity. The list includes dates and times of special event conferences as well as regularly scheduled live conferences.*

COMMENTARY

OLT-130 **Behind the Screens**SM. *A column of computer and information industry news, rumor and gossip. Updated daily.*

OLT-140 **Beginner's Corner column for new CompuServe Users.** *The columns contain instructions and helpful hints on how to get the most for your connect time dollar.*

OLT-3500 **Online With Charles Bowen.** *A column of insights into online computing, written by the co-author of* How to Get the Most Out of CompuServe.

OLT-1000 **Computer Events Calendar.** *A comprehensive weekly listing of major computer and information industry conventions, conferences, seminars and other events. Updated every Sunday.*

OLT-2000 **OLT Special Reports.** *A database of analytical news articles on events of major significance in the computer and information industries.*

OLT-3000 **Computer Legislation Database.** *A complete listing of all federal legislation affecting the computer and information industry and users of its products and services. The database tracks legislation in the House, Senate and President's Desk through passage to Public Law. This database is updated as required by movement or death of a piece of legislation.*

LETTERS TO THE EDITOR

OLT-30 **Letters to the Editor** *main menu. Lists all departments.*

OLT-31 **Send a letter instructions.** *Complete instructions on how to send a letter to the editor via the electronic service.*

OLT-32 **Read letters** *from other OLT readers.*

OLT-33 **Send a letter** *to the editor. You will receive prompts for each step in the process. Important Note: We cannot answer questions regarding the CompuServe Information Service through this service. If you have questions or problems, please use the Feedback service (GO FEEDBACK) or the Online Computer Report Forum (GO RADIO). Also: this service does not have automatic wrap—please enter a carriage return after every 80 characters while composing your letter. Failure to do so will result in truncation of your letter.*

REVIEWS

OLT-200 **Electronic Edition Reviews** *main menu. Lists all departments in the Reviews Section of OLT.*

OLT-220 **Hardware Reviews** *main menu. Six months library of reviews.*

OLT-3960 **Hardware Reviews for May.**

Multicore Multifunction Card
Manufacturer
Quadram Corp.
Computers
Apple II family running ProDOS.

Ultimate ROM And Programs
Manufacturer
Traveling Software, Inc.
Computers
Tandy TRS-80 Model 100 or Model 200; Olivetti M-10; NEC PC-8201.

Universal Base For Monitors
Manufacturer
Curtis Manufacturing Co., Inc.
Monitors
Amdek, Taxan, USI and others fitting on a 13-inch square.

Pedestal For Portable Computers
Manufacturer
Curtis Manufacturing Co., Inc.
Computers
Compaq and IBM portable computers.

OLT-3970 **Software Reviews for May.**

AI:Typist Spelling Checker And Word Processor
Manufacturer
AIRUS Corp.
Computers
IBM PC, PC-XT, PC-AT, PCjr. and compatibles.

Get Organized! Desktop Manager With Word Processing
Manufacturer
Electronic Arts
Computers
IBM PC, PC-XT, and compatibles.

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ELECTRONIC EDITION

MultiPlan 2.0 Spreadsheet
Manufacturer
Microsoft Corp.
Computer
IBM PC, PC-XT and compatibles.

Prospect Organizer Sales Management Software
Manufacturer
Dow Jones & Co., Inc.
Computer
IBM PC, XT and compatibles.

Report Writer For dBase II And dBase III
Manufacturer
Concentric Data Systems, Inc.
Computers
IBM PC, PC-XT, PC AT and compatible computers.

DeskToppers Desk Accessory Software
Manufacturer
Harvard Associates, Inc.
Computers
Apple Macintosh 128K, 512K and XL; Lisa 2 with MacWorks.

PC-FILE III File Management Software
Manufacturer
ButtonWare, Inc.
Computer
IBM PC, PC-XT, and compatibles.

MacOffix Office Organization Software
Manufacturer
Emerging Technology Consultants, Inc.
Computers
Apple Macintosh 128K, 512K and XL; Lisa 2 with MacWorks.

Sensible Speller For Spell Checking
Manufacturer
Sensible Software, Inc.
Computers
Apple II family running ProDOS or DOS 3.3.

VUE Professional Project Management Software
Manufacturer
National Information Systems, Inc.
Computers
IBM PC, PC-XT and compatibles; custom versions available for others.

Artpak Graphics Software
Manufacturer
Pal Software Corp.
Computers
IBM PC, PC-XT and compatibles.

OLT-240 **Book Reviews** *main menu. Six-month library of reviews.*

OLT-3980 **Book Reviews for May.**

The Computer Pioneers *by David Ritchie, Simon and Schuster.*

Computers in Plain English *by Gary Tartaglia, Targeted Communications.*

Computers in the Office: Making the Most of Your Micro *written and published by Edison Electric Institute.*

Troubleshooting and Repairing Your Commodore 64 *by Art Margolis, TAB Books, Inc.*

Composers and the Computer *edited by Curtis Roads, William Kaufmann, Inc.*

OLT-250 **New Product Announcements** *main menu. Six month library. New Product Announcements.*

OLT-3990 **New Product Announcements for May.**
NewWord 3 *word processing software for PC-DOS, MS-DOS, Concurrent DOS and CP/M-86, Newstar Software, Inc.*
BlueFish *text management software for the IBM PC, Computer Access Corp.*
Automatic Parallel Printer Switch *Tactical Electronics Corp.*
The Accelerator *advanced CPU for the IBM PC, The ICU Group.*
Cricket Graph *Macintosh color graphics presentation/desktop publishing software for science and business, Cricket Software.*
Primages 100 Daisy/Grapher Printer *daisywheel graphics and letter-quality printer, Primages, Inc.*
Touch Me First!! *static mat, Curtis Manufacturing Co., Inc.*
DK Showfile *memory-resident show file utility for the IBM PC, DK Softworks.*
PCSecure *datafile encryption program for CP/M machines, The SourceView Corp.*
The File Connection, The Word Connection and The Tape Connection *software for data/text transfer from the IBM PC, Flagstaff Engineering.*

ADVERTISERS

EBB-11 **Instructions** *on use of the Electronic Bounce Back reader service system.*

EBB-160 **Online Today Display ads** *main menu for past three months.*

EBB-20 **Ad descriptions** *and EBB response system for May.*

EBB-70 **Shopper's Guide**

MISCELLANEOUS

OLT-352 *How to contact OLT editors.*

OLT-353 *How to report news to Online Today.*

OLT-357 *Online Today Electronic Edition index of key pages.*

Deregulation

This letter is a reply to the recent Monitor article about deregulation of the communications industry.

Mark Fowler has made his mark on the broadcast industry. He now wants to do more to the telephone industry than the courts have already done.

This is not a matter of "deregulation" of a consumer market. We are seeing what the break up (of AT&T) is doing — the telephone service is no longer the proud thing we once had. We are getting a system that is becoming more like other countries' systems. The line quality is degrading, the industry is fragmented and there is duplication of equipment. There is no real coordination and no real "national policy" of telephone service. The public will pay — and pay heavily for years.

We may very likely end up with one of the worst telephone systems in the world. As other nations are building a national policy for better phone service, we are dismantling ours in the name of "deregulation."

These and other issues are discussed regularly in the Broadcast Professionals Forum (GO BPF-200) on the CompuServe Information Service.

John Hoffman
New York, N.Y.

Viewtron Shutdown

I cannot believe that Viewtron is shutting down. I am not upset, but I did subscribe to it. It was true that usage did not increase with the number of subscriptions.

I would not have known that Viewtron was shutting down if I did not read the Monitor section of *Online Today Electronic Edition*. I exemplify one of the users Viewtron would rather not have had. Oh, well. CompuServe all the way.

Daniel Tam
Ann Arbor, Mich.

Electronic Learning

I would like to see an article about earning a college degree through one's personal computer at home. There was a brief article in The Buffalo News on this topic, but there was no follow-up information such as the type of computer one needs for taking a course. The article mentioned The Electronic University and Telelearning Systems. Can you find more information on this topic?

Carol Mackey
Derby, N.Y.

Editor's note: Watch for a cover story about online learning in the August issue and other education-related articles in the Update section.

'C-64 Reborn' Article

I just read the Monitor news item, "The C-64 Reborn." *Online Today*

Each issue of *Online Today* is filled with information which CompuServe subscribers benefit from having close at hand for reference.

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Both styles of case are handcrafted in leather-like fabric, similar to the storage units used by libraries to shelve and preserve their periodicals. And the spines of all cases are embossed with the *Online Today* logo for easy identification on any bookshelf.

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Talk to Us

Online Today has a Feedback area in the *Electronic Edition*. Simply GO OLT-33 from any prompt in the CompuServe Information Service.

ONLINE TODAY
ELECTRONIC EDITION

Electronic Edition describes GEOS as a "surprise development." This product was shown at the winter Consumer Electronics Show more than three months ago and thus hardly rates the kind of hyperbole your piece provides.

This isn't to say that it may not be a competent product — just that the tone of your report seemed somewhat breathless.

Mark Skapinker
Toronto, Ont.

Bias Against Commodore?

I am getting tired of *Online Today*'s attitude toward Commodore products in general and the C-64 and C-128 in particular.

I let John Edwards' snide remarks about the Commodore in his Behind the Screens article, "An AT in Commodore's Future?" go by. Also, I let the product review of the C-128 in the December issue go by. However, the item in Monitor (March 17) titled "Commodore 64 Reborn" is too much.

Some people may indeed consider it an obsolete machine. But there are people who also consider the Apple IIe an obsolete machine. I don't think you would mention them, however, because you are responsible journalists who would say that there are millions of these machines still in use. They are not obsolete to the people using them. There are many programs being written for the Apple IIe, and I'm sure there will be many more written in the future.

None of this is any different for the C-64. So why don't you maintain your journalistic impartiality and give the C-64 its fair due. It is a machine that is in many ways superior to the Apple II and one that 5 million owners have not found to be obsolete. Stop treating these machines as poor cousins to the more expensive machines; they are not toys.

Tim Grantham
Toronto, Ont.

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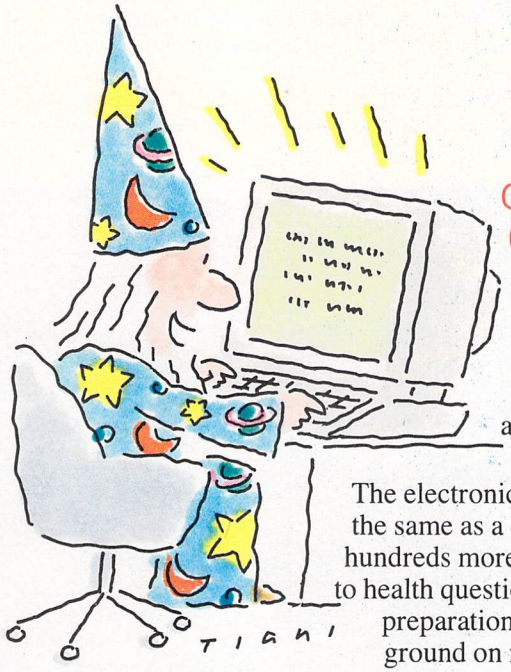

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Free Exchange

Computer users can never learn too much about how to use their machines. In addition to the usual array of industry books and magazines comes a new source — the Microcomputer Electronic Information Exchange. And it is free.

Sponsored by the National Bureau of Standards, MEIE is an electronic bulletin board system available 24 hours a day with information on the acquisition, management and use of small computers. User groups can post newsletters and announcements of meetings; specific information is available on conferences, federal publications and activities.

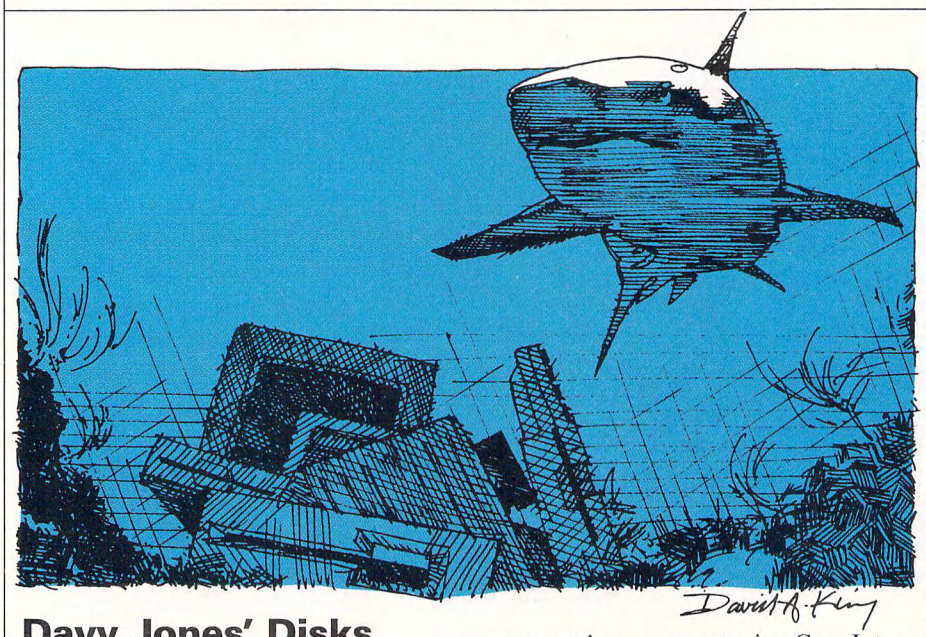
MEIE is operated on an IBM PC-XT with two telephone lines (301/948-5718 or 5717) at 300, 1200 and 2400 baud.

"This bulletin board system is an experiment in electronic product delivery," says Ted Landberg, a computer scientist with the NBS and the systems operator of MEIE. He says the system is a new way of getting out NBS information to federal government workers and the general public.

"We're trying to provide state-of-the-art communications. We have a lot of people logging onto the system who are experimenting with the whole idea of electronic communications. For many, this is the first time they are talking to someone on another computer," Landberg said.

The NBS computer scientist has big ideas for the future of his BBS, wanting to experiment with voice and graphics capabilities. He is also intrigued with the application of new technologies — such as cable television with digitized signals and FM broadcasting — as a means of reaching a larger audience.

— Cathryn Conroy



Davy Jones' Disks

Question: What holds 20 megabytes of data and a quart of salt water?

Answer: An IBM PC-AT hard-disk drive lying on the ocean floor.

Silly, right? What would a hard disk be doing in the cold depths of the ocean? Well, for one thing, probably working as reliably as it did in its owner's computer.

As any PC-AT owner will tell you, early models of IBM's powerful desktop computer had internal hard disks that were plagued by a variety of ills. Drives that didn't pay one or more visits to a friendly service technician were rare indeed.

But at least one independent vendor of PC-AT hard disks has found IBM's woes a welcome opportunity. Core International, a Boca Raton, Fla., hard-disk distributor, recently ran ads in various PC-oriented publications stating: "Boca Raton, home of the IBM PC, needs a fishing and diving reef. . . . We're gonna deep-six thousands of 'em (PC-AT hard disks). Simply because that's where they belong."

The ad invited readers to trade in their 20-megabyte PC hard disks for Core's 40-megabyte units. The company also offered customers a $1,000 rebate on each unit.

And so the drives were dumped into the Big Blue ocean.

— John Edwards

Computer Dogfight

The valiant men and women of the U.S. Air Force are getting ready to fight a new enemy — computer illiteracy.

As part of a new training program called Project Bold Stroke, the service intends to instruct selected generals, middle- and lower-level managers, senior enlisted personnel and ROTC students in "computer software development and management in support of national defense."

The program was developed last summer by Assistant Air Force Secretary Thomas E. Cooper and Gen. John L. Piotrowski, the service's vice chief of staff. The idea occurred to Cooper, who also is an assistant secretary for research, development and logistics, when he realized how poorly the Air Force was handling computer software contracts.

An Air Force spokesperson says the program will be implemented gradually and will include classroom instruction.

As they say in the song: "Nothing can stop the U.S. Air Force." Except, perhaps, computer ignorance.

In the Beholder's Eye

The next time you blame your video display terminal for your headache or poor vision, consider the fact that you may be at fault.

According to researchers at the University of California at Berkeley and the Lawrence Livermore Laboratory, VDTs by themselves have little to do with users' physical ailments. In tests on 35 volunteers at the university's lighting laboratory, researchers found that green, amber and white display screens have just about the same effect on users' performance and comfort. The same was true when the rooms were lit by incandescent light, fluorescent light or high-frequency fluorescent light.

Researchers note that people who develop eye problems or chronic headaches are doing something wrong. Most likely users are sitting too near the VDT, setting the brightness too high, wearing glasses not suited for VDT use or working in the glare of a window.

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Nothing Could be Finer Than a Computer in Carolina

North Carolina's government is getting wired.

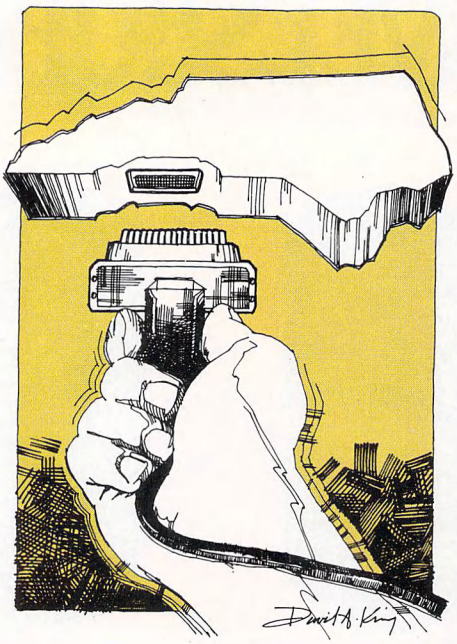
After years of delay, the state is developing a computer system that will make its legislature one of the nation's most technologically sophisticated governing bodies.

The system, which will cost about $3 million, will enable legislators and their assistants to write and read documents that are currently paper-based and gain instant access to a variety of state databases.

But legislators won't be the only ones online: the system will also be available to North Carolina residents with touch-tone telephones.

When in session, hundreds of people call the legislature to ascertain the status of pending bills. Under the new system, lobbyists, government officials and other citizens could check a bill's status by merely keying in its number on the phone's keypad.

According to Glenn Newkirk, the legislature's director of automation, "North Carolina's General Assembly



will finally get a technology that has been available to other state legislatures for a long time. One year ago, our General Assembly was in the lowest quarter in office automation systems. Within 10 months, we'll be in the upper quarter."

— John Edwards

Computer Makers to Set Standards

Eighteen computer and telecommunications equipment manufacturers have agreed to form a new non-profit organization that will develop computer communication standards.

The organization, called the Corporation for Open Systems, will act as a sort of Underwriters Laboratories for the computer industry. It will select certain specifications and then test individual units to see whether they reach those standards. The devices that do will be issued a certificate of compatibility. The corporation is expected to have its own independent staff with a budget of about $10 million a year.

Initial members of the organization are Digital Equipment Corp., AT&T, Burroughs, Amdahl, Control Data, Hewlett-Packard, Honeywell, NCR, Sperry, Telex, Wang, Xerox, Harris, Perkin-Elmer, Northern Telecom, Tandem and Bell Communications Research, a cooperative venture of the regional Bell telephone companies. Other companies have been invited to join. Each member has agreed to contribute $125,000 for the first year and $200,000 each for the second year.

The Congressional CRT Filters

They've been called many names, ranging from the scurrilous "Big Brother" to champions of personal privacy. But several Capitol Hill lawmakers remain committed to forging new legislation for a high-tech era.

In about six months, the 99th Congress will come to a close, and the more than 30 bills designed to regulate computers will have to be considered. Chances are that just one of them will make it to the president's desk to become public law.

But there is a dichotomy in the Capitol, sharply dividing liberals and conservatives, as Congress considers both the safeguarding of electronic privacy and the exercising of control over electronic messages.

The champions of personal privacy are Sens. Patrick Leahy (D-Vt.), Charles McC. Mathias (R-Md.), and Reps. Robert Kastenmeier (D-Wis.) and Carlos Moorhead (R-Calif.). They have introduced the Electronic Communications Privacy Act (S. 1667 and H.R. 3378), designed to offer virtually the same protection currently provided for telephone conversations to computerized communications, including electronic mail, cellular radio telephones, direct computer-to-computer links and microwave transmission of telephone signals.

In addition, the act would require law enforcement agencies to obtain warrants before gaining access to information contained in electronic mail systems.

The last bill enacted to protect the privacy of communications was the 1968 federal wiretap law, but it does not protect the new electronic communications from being monitored surreptitiously.

"There may have been a day when good locks on the door and physical control of your own papers guaranteed a certain degree of privacy, but the new information technologies have changed all that," says Leahy. "Private communications of individual Americans and American businesses must be protected from electronic eavesdropping — whether the eavesdropper is a corporate spy, a police officer without probable cause or just a plain snoop."

But legal eavesdropping may be the result if the Computer Pornography and Child Exploitation Act (S. 1305) becomes law. Introduced by Sen. Paul Trible (R-Va.), the bill would make using computers to transmit obscene material, specifically pertaining to the sexual exploitation of children, illegal.

Should it become law, the bill would prohibit the interstate transmission of obscene material via computer and could set up penalties for owners and operators of computer systems who knowingly engage in that activity.

Opponents of the bill fear it is written in such a broad way that someone must decide what is and is not obscene. In subcommittee hearings on the bill, Barry Lynn of the American Civil Liberties Union said it actually could apply to computerized dating services. Many others also are questioning the effects this bill would have on the right to free speech and whether electronic speech is indeed free.

These issues may seem more philosophical than those related to tax reform or international trade, but if passed into law, the impact of this bill could be astounding to corporate and individual computer communications users.

— Cathryn Conroy

Assorted Bits

Compaq Computer Corp. has started trading its securities on the New York Stock Exchange. The company's common stock and 9¼ percent convertible subordinated debentures are listed under the symbols CPQ and CPQ 05. Compaq formerly was traded over-the-counter (with NASDAQ symbols of CMPQ and CMPQ G).

Apple Computer recently named Albert A. Eisenstadt to replace Steve Jobs on its board of directors. Eisenstadt, who joined Apple in 1980, will continue to oversee the company's legal matters, as well as undertake increased responsibilities in business development, said an Apple spokesperson.

IBM's Japanese subsidiary and Nippon Telegraph and Telephone Corp. have set up a joint telecommunications and computer venture in Japan. The new company, Nippon Information and Communication Corp., will connect NTT's telecommunications and data networks with IBM computers.

Vector Graphic has announced that it has filed for protection from its creditors under Chapter 11 of the Bankruptcy Code. In a statement, the firm stressed its intention to continue to pursue merger discussions with Dual Systems Control Corp. "and other potential candidates" and that it will continue sales of its current product line and provide systems support.

Storage Technology Corp. reports it has dropped its four-year, $100 million effort to develop optical-disk technology, with some 50 Storage Tech employees being transferred to other areas of the corporation. According to the Associated Press, "The decision to call off the optical-disk development project is the latest in a series of moves the company has made this year to focus on its core products — traditional computer storage devices and printers."

The American Medical Association has sued GTE Telenet for $15 million, accusing the data network of sabotaging MINET, the association's online medical information service. According to the suit, filed last December, the AMA claims that Telenet failed to properly market and support MINET as promised, failed to update and correct the databases, and abruptly cut off customers and treated others discourteously in efforts to weaken the business.

A Securities and Exchange Commission filing shows that Apple Computer cofounder Steve Jobs has reduced his Apple holdings to 3.5 million shares, or 5.59 percent of the common stock. Up until last July, Jobs was still Apple's largest shareholder, with about 10 percent of its stock.

Tandy Corp. and Apricot Computer PLC, citing "the general slowdown" in the microcomputer market, have announced they are ending their joint venture to market personal computers in Europe.

The U.S. Justice Department earlier this year said it has no antitrust objections against efforts by a group of software publishers to develop voluntary standards to prevent program piracy. According to the letter from Assistant Attorney General Daniel H. Ginsburg, who heads the antitrust division, the Justice Department finds that ADAPSO has identified "a problem that may be an appropriate subject of cooperative action" among the association's members and that an attempt by an industry group to develop standards, even though some members of the group may be competitors, is permissible under the antitrust laws unless the purpose or effect is to limit competition.

Grolier Electronic Publishing has started distributing a CD-ROM version of Grolier's Academic American Encyclopedia along with a Philip's CD-ROM disk drive. The 4.72-inch-diameter compact disk has the capacity to store roughly 100 million words or 220,000 pages of text — about 1,500 times more data than can fit on a typical 5.25-inch floppy disk.

— John Edwards

NY's Thruway Cable

New York has unveiled a plan to lay a 559-mile-long fiber optic cable along the entire length of the New York State Thruway.

The cable, which would be about a half-inch thick and stretch from New York City to Buffalo, would be capable of transmitting data communications as well as approximately 650,000 telephone calls and 1,800 television signals. Before the project can begin, however, U.S. Transportation Secretary Elizabeth Dole must waive restrictions prohibiting New York from developing the federally owned land next to the Thruway.

A representative of the state Economic Development Department notes that the federal government has a history of rejecting such requests, however. "We're hopeful, but they've done this (rejected the proposal) to other states," he said.

Automation on a Roll

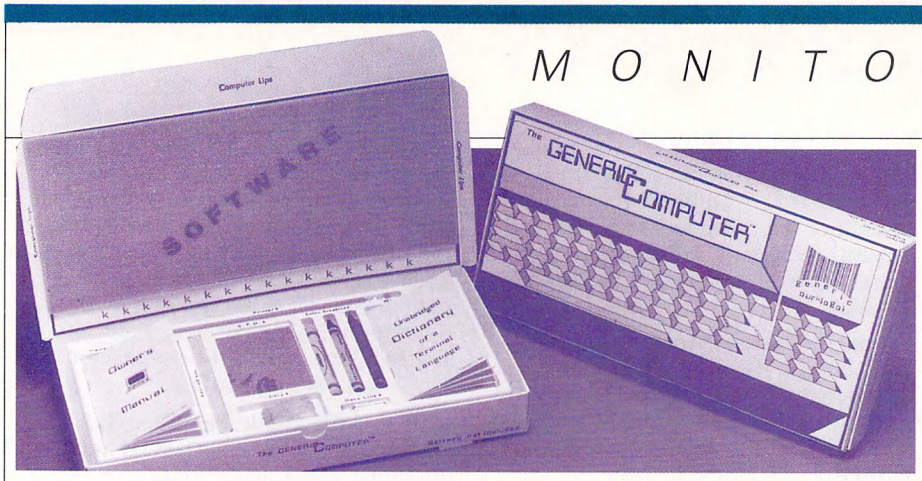
Who's working? Lots of people, says our government. And more workers than ever are using personal computers.

A recently released study by the the U.S. Office of Technology Assessment reports that 45 million office workers are now using personal computers, and notes that desktop system use will increase rapidly over the next 15 years.

But the report, "Automation of America's Offices," also revives the old concern that computers actually may be eliminating some jobs. According to the study, increased worker productivity brought about by desktop computer systems could reduce the demand for clerical workers and might eliminate some jobs in the ranks of top professionals and mid- and low-level managers.

"As organizations gain experience in automating clerical work, they are likely to turn their attention to automating the tasks of managers and professionals. . . . The most likely outcome of office automation in terms of office employment is slowing growth over the next decade, and possibly a decline in office employment thereafter," claims the report.

It continues: "The critical question for Congress is . . . how to improve the capability of the federal government to understand, and thus be prepared to respond to, technological and structural changes that are occurring in the United States and other advanced industrial nations."



Pet Computer

This one's almost too cute for words.

A small Eugene, Ore., company called Intec Inc. has developed the "Generic Computer." What's this? Another PC clone? A computer for your local supermarket's low rent section? No. It's yet another variation on the seemingly inexhaustible "pet rock" theme.

Priced at only $5.95, the "computer" features a cardboard "keyboard," a Popsicle "joystick," crayon "color graphics," a paper clip "data link," a paper-bound "dictionary" and wood "chips." Get it? Wood *chips*.

Intec co-founder David Lang says he got the idea for his silly system when his wife gave him an "independent programmer's kit" shortly after he quit his job at a computer magazine. The kit included a "printer" and "memory" (a pencil and a pad of paper). He now hopes the Generic Computer will become the latest "in" thing to own.

"It's kind of silly, but it makes a great gift," says Lang.

For more details on the Generic Computer from Intec, call 503/343-1464. But, please — use a *real* telephone.

— *John Edwards*

Vive L'Ordinateur Personnel

The French are sharpening their guillotines again. This time, it looks as if some American computer terms may soon be rolling into the basket.

The French, as the world knows, have this thing about language purity. A French linguist would rather put ketchup on his croissant than hear such terms as le hot dog, le Coke or, yes, le PC. Indeed, the French have established a commission to rid their language of all English-based computer jargon.

The group, called the Computer Terminology Commission, meets monthly in a never-ending effort to invent catchy, French-based computer terms. Words that are accepted by the commission are then printed in a government publication. Once the CTC hands down its decision, government agencies, ministers and state-owned television stations are forbidden to use the English term instead of the French. While users of English terminology aren't punished, the commission's overseer, the High Committee for the French Language, does send warning letters to flagrant violators. *Mon dieu*!

The commission has actually concocted some fairly successful translations. The French no longer buy software but *le logiciel*. Data processing is a thing of the past; the French now engage in *l'informatique*. From that word it was a short step to *telematique* and *bureautique* for telecomputing and office automation respectively. However, most computer users in France still use the English "bug" when referring to a problem in a program instead of *bogue*, meaning the shell of a chestnut.

Most American companies doing business in France tend to ignore the trend and use English in their advertisements and press releases. IBM, however, takes a slightly different view.

When it first entered the French computer market 27 years ago, ever-perfect Big Blue hired a linguist to develop a purely French term for computer. What the linguist came up with was *ordinateur*, a word derived from the Latin meaning "putting in order." Some years later, when IBM was getting ready to enter the French personal computer market, it decided to call its unit the *IBM l'OP*, or *IBM l'ordinateur personnel*. In addition, IBM uses French terms as often as possible in all company publications.

Well, at least Charlie (or should we say *Charlot*?) will be happy with the translations.

Software and the Law

The stereotype of a creator of computer programs and games is someone who lives secluded from the rest of the world — a genius in a remote cabin with only a computer for companionship. The products of his labors are shipped to civilization via a diskette.

But attorney/author John. C. Lautsch says such isolation — either real or figurative — is no longer possible, as software writers must now be concerned with the new laws governing their work.

Lautsch, a partner in the Newport Beach, Calif., law firm of Day and Lautsch, chairs the Computer Law Division of the American Bar Association's section on science and technology. Last year he published *The American Standard Handbook of Software Business Law* because, he says, computers and software are key factors in shaping how Americans will work and play in the remainder of this century and beyond.

"We live in a society of laws, and the software writer is not exempt. In fact, for the software writer, an understanding of those laws is critical — even when the law itself may not fully address the technology it is regulating. Software law is, of course, evolving, but software, as a billion dollar industry, is increasingly being controlled by legislation and regulation," he says.

The legal apparatus has been slow in responding to this fast-paced electronic revolution, and an understanding of the legal framework has been even slower. Substantial lawsuits are being filed against software producers and distributors.

"The software company that proceeds without an understanding of the law increasingly does so at its own peril. The pitfalls are real," Lautsch warns.

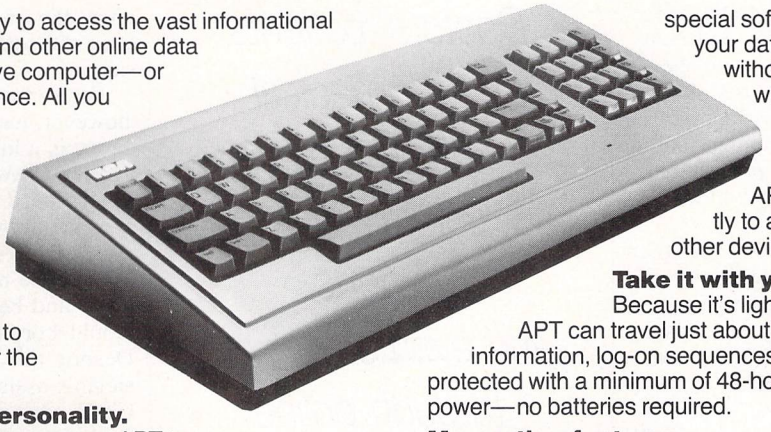
His book, written in non-technical language, includes an analysis of the software industry, an explanation of software's legal standing, techniques of protecting software, warranties and associated liabilities connected with software creation and sale, contract law pertinent to the sale of software by its author, and constitutional issues and software.

— *Cathryn Conroy*

How to use CompuServe®...in seconds. Without a computer.

Get the $498 APT from RCA.

Now there's a better way to access the vast informational resources of CompuServe and other online data bases—without an expensive computer—or extensive computer experience. All you need is the RCA APT, a telephone line, and a TV set or display monitor.



Get on line in seconds.
With the touch of single key, the APT terminal can dial the data base you select, log into the host computer, and return control to you, to begin your search for the information you want.

APT's programmable personality.
For example, you can pre-program APT to match the communications requirements of CompuServe and other data bases you select. The auto dial feature provides tone or pulse dialing of up to 26 stored telephone numbers for voice or data base calls, with log-on sequences entered automatically after dialing. Password protection can limit access to designated numbers.

Built-in modem.
APT is available with your choice of either a 1200/300-or 300-baud modem that connects directly to your phone line.

Professional keyboard design.
APT has a 60-key typewriter style alphanumeric keypad plus a 16-key calculator pad for quick entry of numerical data and phone numbers.

Two user keys allow convenient selection of printer or other operating modes. Four user-programmable function keys save entry time by sending a multiple character string to the host computer with a single keypress.

Standard monitor or TV display.
APT terminals have video output for either an 80- or 40-character by 24 line display on a standard monitor, as well as 40-character output for a TV set display. The 24th line can be selected to display telephone, printer and on-line status.

All you need to communicate.
Even if you already use a personal computer, it probably requires a modem, communication board and special software to communicate with your data base. APT can do it without costly add-ons, and without tying up an expensive computer system designed primarily for other tasks. With its RS232C port, APT can also connect directly to a computer system or other devices.

Take it with you.
Because it's lightweight and briefcase size, APT can travel just about anywhere. Directory information, log-on sequences and set-up parameters are protected with a minimum of 48-hours backup, without plug-in power—no batteries required.

Many other features.
APT also provides a printer port for hard copy, input for an acoustical coupler for use when direct phone line connection is unavailable, a built-in speaker with adjustable volume control, and much more.

The price is right.
The APT VP4801 terminal with built-in 300-baud modem lists at $498; the VP5801 with built-in 1200/300-baud modem lists at $798. The optional VP4012D display monitor is $199 list.

APT: No better way to communicate.
We know of no other professional quality terminal that can do as much as APT, and at such reasonable cost. For complete specifications, call 800-233-0187 and ask for the full-color APT brochure. To order, call 800-722-0094. (In PA, call 717-295-6922). VISA and MasterCard are accepted. Or write to RCA Data Communications Products, New Holland Avenue, Lancaster, PA 17604.

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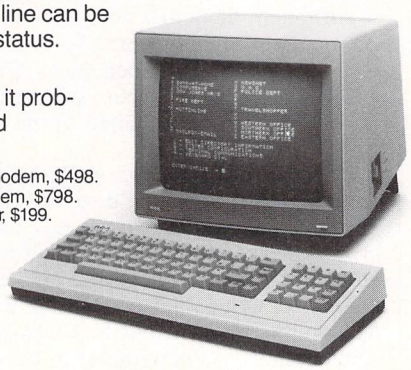

APT VP4801, 300-baud modem, $498.
APT VP5801, 1200/300-baud modem, $798.
Optional VP4012D display monitor, $199.

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Online Lifeline

Doctors, patients probe medical references, consult with experts and even save lives through online health services.

By Cathryn Conroy

The computerization of health care services is still in its infancy, and many physicians find themselves as puzzled over RAM and ROM as the rest of us. But those who have met the high-tech challenge and adopted computers and online resources into their practices have discovered a vast, brave new world at their fingertips.

Today, computers do much more than tallying up patient bills. They can create a medical library that fits neatly on a desktop, provide the means for consultations with experts around the world, present alternatives to medical education, and link physicians and their professional associations. The future could be even more exciting as hospitals, corporations and physicians join to fully utilize online resources.

Online Medical Library

Since there are not enough hours in the day for physicians to read all the professional journals they should, most rely on the services of trained medical librarians to manipulate the complicated databases listing bibliographic information on medical articles.

Now, searches of the National Library of Medicine's Medline database can be done by any health care professional through CompuServe's PaperChase (GO PCH) service. Medline is the online version of *Index Medicus*, and with the PaperChase computer program, developed at Boston's Beth Israel Hospital, searches are easy to perform.

Available 24 hours a day, PaperChase offers all material indexed and abstracted for Medline dating back to Jan. 1, 1975, including more than 3 million references from some 3,400 journals — making it one of the most important medical research and patient care tools available to health care personnel. PaperChase expands its database continually, and before long it may include the entire Medline file dating back to 1966.

Users can conduct PaperChase searches by title words, medical subject headings and subheadings, author's name, journal title, year of publication, language of publication and Boolean combinations (and/or) of any of these. A series of simple questions guides the user in the search, and online "help" is available. Abstracts can be displayed and printed, although their contents cannot be searched.

PaperChase is available to CompuServe Information Service subscribers at a $24 per hour surcharge, regardless of whether the service is accessed during prime time or standard time. The average charge for each search is $7 to $8, one of the lowest rates of all online services currently offering access to Medline.

Although the actual document cannot be retrieved online, it may be ordered electronically from PaperChase. Unless the article is in an obscure or foreign journal, it usually is mailed to the user the next business day.

Howard Bleich, M.D., of Beth Israel Hospital and one of the developers of PaperChase, admits that the day probably will never come when the full text of all medical journals is stored online. "A number of companies are putting journals online, but whether that will be commercially viable remains to be seen. Obviously, the storage requirements are massive. The problem now is that the journals online are the most popular ones, the ones most easily accessible to even the smallest medical library," he says.

For some health care professionals, however, even that small medical library is a luxury not readily available.

Tucked away in rural Maine is the Gouldsboro Clinic, an outpatient health care facility with a staff of one physician, a physician's assistant and a registered nurse. The nearest hospital is 70 miles away and between there and the Gouldsboro Clinic is one doctor's office. Despite this, John C. O'Brien, the physician's assistant, says the Gouldsboro Clinic once prescribed a new medication for hypertension a full year before the Food and Drug Administration allowed pharmaceutical firms to begin advertising its availability. This was possible, because the Gouldsboro Clinic is linked to the medical world through PaperChase.

"I use PaperChase for rapid access to medical information and for sifting through the literature," says O'Brien. "I have to limit my journal subscriptions to the number I can actually have time to read, so there's a lot I wouldn't be exposed to without having access to PaperChase."

Stalking Rare Disorders

Both rural and urban physicians can find themselves at a loss when a patient is suffering from a rare disease, which is why the Rare Disease Database (GO RDB) was developed by the National Organization for Rare Disorders Inc.

The Rare Disease Database offers a complete listing of rare disorders searchable by symptom, disease name or CMIT number. A search may be narrowed or expanded using multiple keywords, and menus guide users through the database search. For those who cannot understand the medical language of an article, researchers at NORD will "translate" it into simpler language.

A key factor to the success of this database is the ease and frequency with which it can be updated. "Most of the rare diseases are genetic, and often researchers are on the verge of major

Stalking rare diseases: *Knouf searches medical databases*

breakthroughs,'' explains Abbey Meyer, executive director of NORD. ''Within days we can have new information about treatments and drugs online. Medical books are published and read by physicians, but they cannot be instantly updated. It is easy for a doctor to look at a book and think this is the beginning and the end of the available information. With an online database that is just not so.''

Although typing at a keyboard may not be as dramatic a way of saving a life as other means, it does happen. ''My mother has spinal stenosis and was told by a specialist in Iowa that there was nothing that could be done to help her,'' relates Kris Knouf, a CompuServe user from Columbus, Ohio. ''She also has Parkinson's Disease, so her life had become miserable.''

After visiting her mother last summer, Knouf returned home and accessed PaperChase and the Rare Disease Database on CompuServe. ''I wanted to see if there was anywhere she could get help. I discovered that there is surgery available with a rather high success rate. I printed out the information and gave it to my father. Based on the information I had found, my parents had my mother's family doctor make an appointment for her at the University of Iowa Hospital. She had the surgery, and it was successful. If she had waited another year or two, there probably wouldn't have been any way to help her, and she would have lived with terrible pain the rest of her life.''

Realizing that this surgical treatment is a fairly recent development, Knouf says she is not too upset with the specialist who advised nothing could be done. ''But if more doctors would make use of services like PaperChase and the Rare Disease Database, they might be able to help more people.''

Electronic Consultations

Consulting with other physicians — especially in the case of a rare or unusual disease — is a matter of course for all doctors. Now they are not limited to local expertise. Through electronic communications, physicians miles apart can offer timely, inexpensive consultations.

Sponsored by the American Association for Medical Systems and Informatics, the AAMSI Medical Forum (GO MEDSIG) links physicians worldwide. ''We use the forum to bounce our ideas and concerns off one another and receive a variety of opinions, not just one regional viewpoint,'' says Forum Administrator John P. Sheppard, M.D., a general practice physician in rural, northern Vermont.

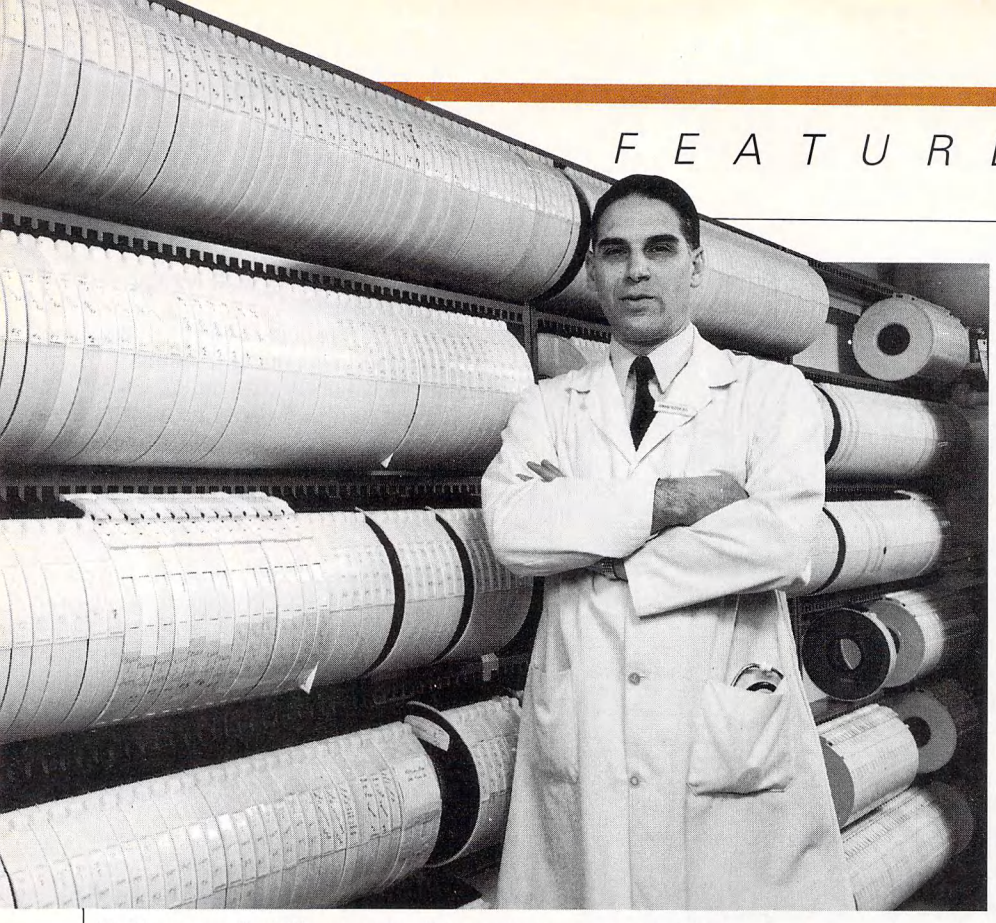
Physicians using the forum — the nation's largest medical computing association — can gather background medical knowledge and learn about the latest developments in the field. ''We were talking about the AIDS epidemic a year before the media popularized it,'' Sheppard points out. In another instance, a widely prescribed drug was suddenly taken off the market by the FDA, and forum members discussed the reasons and ramifications of this action.

Sections on the forum bulletin board include medical news, software, medical students, critical care and telematics. Weekly online conferences on specific topics of interest also are offered, many featuring special guests.

''Physicians can ask specific questions about specific problems and receive expert answers from more than one source. The forum serves all health care professionals by keeping them in touch with the tremendous pool of medical information. Our journals are six months out-of-date upon publication, but never so with the forum,'' says Sheppard.

Electronic Education

Educating physicians is a continuing process that begins in medical school, is further shaped under the rigors of a hospital residency and internship, and continues as intensely throughout medi-



Making a medical library accessible to all: *PaperChase's Bleich*

cal practice. "We are perpetual students," says PaperChase's Bleich, "first as medical students and then as students of medicine."

"Computers are definitely making a big impact on medical education," adds AAMSI Forum's Sheppard. "A student who starts using a computer in medical school becomes a doctor who uses a computer for the rest of his or her life."

Students can use online computer resources for research, assistance with diagnoses and even career counseling. "Students can talk online with physicians who have been practicing medicine for as many as 40 years and can find out what it is like to be a cardiologist at a community hospital or a general practitioner in a small town," he says.

Cost, of course, is a drawback for any extensive use of online resources by students. However, Bleich says that in some medical schools, the associated hospital, library or school often assumes the cost for limited use by students. In other cases, students decide the cost is worth the return and bear it themselves.

"Online resources play their greatest role in medical education in on-the-job training. In general, the best medical education occurs in the context of an immediate patient concern. It is easier to remember the many facets of a disease when it is applied to a human being, rather than reading information in a textbook that you don't know when or if you will ever use," explains Bleich.

As a pediatric intern at Johns Hopkins University Hospitals in Baltimore, Md., Robert Greenberg does more than tend broken arms and football knee injuries. To be sure he can find the most current information on difficult cases, he accesses PaperChase — right from the ward floor — with his Tandy 200 portable computer.

"When a particularly sick child comes in, I sometimes research the problem

Computerized Health Care: Making

Medical information is no longer an elite resource. The computer age and easy access to online resources have brought medical libraries into the home.

Although consulting a computer should never take the place of consulting a physician, many consumers find that online medical resources can clarify a problem, pose additional questions to be asked of the doctor and, in some instances, even alert a physician to a new treatment.

In addition to many services designed especially for the health care professional, CompuServe offers products for the consumer. The Health Forum (GO HCM) enables professionals and laypeople to meet and discuss health issues. Directed by Forum Administrator Bob Walter, the bulletin board features discussions on such family issues as emotional health, AIDS, fitness and nutrition.

The forum has had a profound effect on both consumers and physicians. It once helped a woman survive an attempted rape by convincing her to seek professional and family support, provided a woman with information on glaucoma so she could help her ailing mother decide if she should have surgery or some other treatment, counseled a breastfeeding mother and alerted an allergy-sufferer to a new drug before his physician was even aware of it. In addition, the forum currently sponsors a weekly online Alcoholics Anonymous meeting and a 24-hour support service for those recovering from substance abuse.

"The interactive nature of our forum is its strongest feature," emphasizes Walter. "We are able to quickly find correct information for people and then offer personal support to them."

He recalls one particularly successful online group in which the members helped each other lose weight. The diet group met once a week with members reporting on their weight loss and offering each other encouragement. "We left messages on the bulletin board detailing what we had eaten each day. One person lost 38 pounds, although most were just trying to lose 15 to 18 pounds. The group worked because it was supportive in a positive, non-accusing way and was available 24 hours a day," says Walter.

Physicians, too, are affected by this high-tech form of communication. "Online they have to confront patients as people. They cannot get away with just announcing something and walking away," says Walter. "In the beginning, the physicians were a bit aloof, but now they are interacting — giving their reasoning, citing references, talking to people on a more intelligent basis. I suspect this carries back to the practice."

Another CompuServe product specifically designed for the consumer is HealthNet (GO HNT), an original, comprehensive, online home medical reference source for the personal computer user. Prepared by a team of licensed, board-certified physicians and updated continuously, it is written specifi-

online from my call room at night. Rarely does it really help that situation, but I learn more when I am interested in the problem. I learn about renal disease better, for example, when I have a patient in renal failure. Of course, it doesn't hurt to be prepared for rounds the next day with a short list of the most recent and pertinent articles on the subject," he explains.

Don Nelson, M.D., a family physician in Cedar Rapids, Iowa, says it is still too early to see the results computers are having on medical education, but he believes, as do other experts in the field, that because of the easy access of online databases, medical education may be changing from memory-based to research-based. "No longer will we be cramming information into students' heads; instead we will rely on various resources for factual information when we need it, developing physicians' problem-solving capabilities," he predicts. "Computers will become a road map for medical education. We will rely on online services to look up those things we don't remember."

"I think there is a tendency to memorize less and look up more," agrees Bleich. "For many years, medicine was practiced by what was in the physician's mind. This stored expertise is still used much of the time, but this new component is emerging as items can be quickly and conveniently looked up."

Online resources also could change the way in which medical classes are taught, according to Dr. Richard Gross, information provider for CompuServe's HealthNet. "Patient cases can be presented interactively through the use of electronic services and will simulate the patient encounter more closely than textbooks ever could."

When medical students become doctors and, as Bleich phrases it, "students of medicine," they begin a lifetime of formal, accredited continuing education courses. Each state requires its physicians to meet demanding requirements annually by earning a certain number of continuing education credits.

Linked by Association

Establishing an electronic link between professional associations and their members is one of the latest tools of the online trade.

The American Association for Medical Systems and Informatics (GO AAMSI) features the AAMSI Medical Network, a quarterly newsletter publication, and Disease Prevention Information, published monthly by the Office of Disease Prevention and Health Promotion.

AAMSI also includes a display database integrated with the Medical Forum (GO MEDSIG) featuring the newsletter, reports, research, tutorials for the Medical Forum, medical systems, medical hardware and software, and information on how to buy a computer.

Tying it all Together

Combining the online power of databases, electronic mail and interactive communication is the next logical step in the computerization of health care services.

The Akron (Ohio) City Hospital has done this with the development of BMEDSS (Biomedical Engineering Decision Support Services), an electronic information and communication system specifically designed for the biomedical engineering community.

The BMEDSS service incorporates 10 databases of biomedical reports and abstracts, CompuServe's InfoPlex electronic mail system, and a private online forum where biomedical professionals from around the world can post messages and read association newsletters. Several professional associations also are linked to BMEDSS and can communicate directly with their members.

The database is utilized by biomedical engineers who are responsible for maintaining current information

Consumers Better Patients

cally for people who do not have medical backgrounds.

Managed by Richard Gross, M.D., HealthNet features three major areas: a reference library, a newsletter and a user inquiry forum called "HouseCalls."

The reference library contains timely, accurate information on such medical issues as doctors, diseases, medications, symptoms, first aid, surgery, nutrition, sexuality, exercise and sports medicine, environmental health, preventive medicine, obstetrics and ophthalmology. An ever-expanding, voluminous and dynamic resource, the reference library should answer most health questions.

The newsletter is a bimonthly online publication dedicated to recent medical advances and issues of interest. Current and recent back issues are on file.

HouseCalls offers a chance for users to interact with the HealthNet staff of specialty physicians. Through "Ask HealthNet," users can submit questions to be answered publicly and anonymously for the benefit of all.

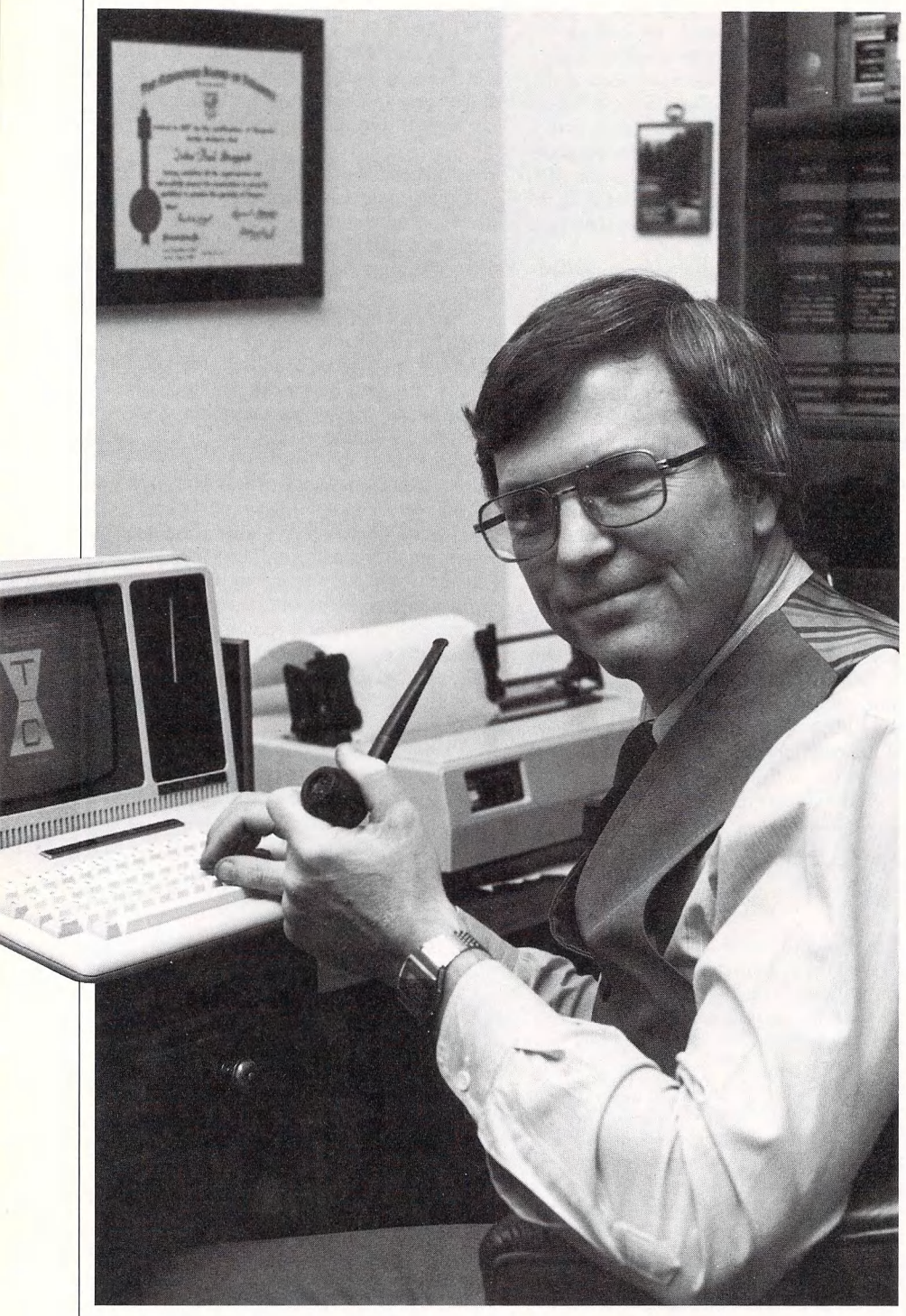
"Our goal is to make our users better patients for their doctors. Theoretically, the best patient is the one who is well-informed. In the dynamic atmosphere of medicine, the textbooks are a year behind when they hit the book stores, but we are able to present breakthrough information immediately. Consequently, patients are almost as up-to-date as physicians in a non-technical sense," says Gross.

Although many of HealthNet's users access the service primarily for entertainment, Gross recalls one instance when a man who lived on the West Coast wrote frantically to HealthNet because his mother, who lived in the Southeast, had been admitted on an emergency basis to a psychiatric clinic. "The doctor wanted to perform electric shock therapy. The family didn't know what to do and was unable to call anyone for advice because of the late hour. We at HealthNet were able to find some valuable information for the man by the next morning so he could discuss the matter with some knowledge with his mother's physician. He ended up giving his permission for the therapy, and it was highly successful."

Having access to such information requires that it be used in a responsible way. Doctors agree that patients should never try to diagnose and treat an illness solely by the information learned online. Rather, patients should present the information to the family physician or specialist. "The media and computers have popularized health information so that it is getting harder and harder for patients to sort out the good from the bad," says Don Nelson, M.D., a family physician in Cedar Rapids, Iowa.

"Once something appears on a computer screen, though, it takes on an air of respectability. It is easy to give that information more authority than it really deserves and apply it to a particular situation even when it doesn't apply," he says.

— C.D.C.



Medical students meet mentors online: *Sheppard sees potential*

on their hospital's medical equipment. Reports are issued weekly by the Food and Drug Administration, but it can take as long as three weeks for those paper-based reports — many of which alert professionals to major problems and defects with equipment — to reach an engineer's desk. Through BMEDSS, the reports are available within 24 hours of publication.

The FDA reportedly is pleased with the database, since it has limited funds for hard-copy distribution of its reports. Electronic publication allows the message to be shared with a greater number of individuals at a far lower cost.

The bulletin board system offers interactive communication between biomedical engineers around the world. "The private forum has allowed people from all over the world to discuss topics they normally couldn't, simply because they wouldn't know each other," says Jeff Drew of Akron City Hospital.

"The medical equipment market is truly international. Much of the X-ray equipment used in this country is manufactured in Germany and, likewise, equipment made in the United States is used all over the world. Unfortunately, most foreigners do not have access to the information published by our federal government on medical equipment. The only countries BMEDSS doesn't have access to are those of the Eastern Bloc," he adds.

Looking Ahead

Predicting the future is risky business, but almost all the physicians interviewed for this article agreed that computers will have a significant place in medicine in the future.

Drew is convinced that electronic publishing has a bright and solid future in medicine. "It's the only way to go. Things change too fast for us to keep up any other way."

"Computers will have much more of an impact than anyone expects," says AAMSI Forum's Dr. Sheppard. Although doctors will never be replaced by computers, computers will assist them in their jobs, enabling them to do more in less time at a lower cost."

Experts believe that in the future computers will automatically read electrocardiograms, identify patterns of health and illness, offer efficient and effective online "doublechecks" of diagnoses, retrieve clinical information and offer worldwide teleconferencing with other physicians. Someday patients will be able to carry their entire medical history in their wallet, as health records will be stored in a microchip on a plastic card.

Computers will continue to change the science of medicine, allowing physicians more time and giving them greater ability to practice what computers can never replace — the art of healing.

Cathryn Conroy is a contributing editor of Online Today. *Her User ID number is 70007,417.*

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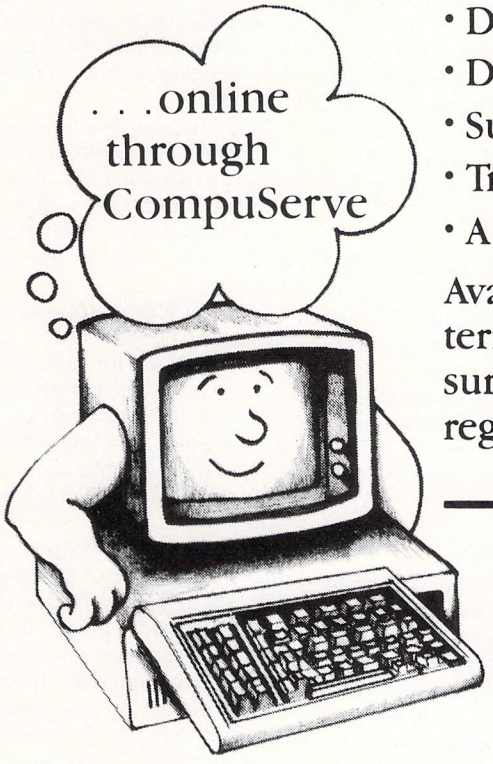

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And the Answer Is . . .

It's that time of year again: time to scan the deep pile of printouts I've made from your letters. I try to answer all of the Easyplexes readers send me, but I find that the most common problems are common indeed. Here are some of the questions I see most often.

I use brand XYZ software with a ZYX terminal and YZX modem. How can I download from CompuServe with this equipment?

This is the single most common question I find in my mailbox. Most software programs use similar processes, but few use the same keys for downloading commands.

While I usually can't answer this question, there are many who can. Virtually every computer user can find a home in a related computer-specific forum. There are forums for Ataris, Commodores, Epsons, Apples, Texas Instruments and more. To find the forum you want, use the FIND command. For example, to find the Atari Forum, type FIND ATARI. Choose the forum off the resulting menu. Once you join the forum, leave a message to "all," requesting help with your downloading conundrum.

I've downloaded many programs from CompuServe's data libraries. Some of my friends are not CompuServe subscribers, but they like the programs. Can I make copies of the programs for my friends?

Absolutely not! Most of the material in the data libraries belongs to those who uploaded it in the first place. Even if the program or file contains no copyright notice, it is protected under current copyright laws. A few files are listed as public domain, but those are very few indeed. Both CompuServe's rules and federal law forbid such duplication.

Put yourself in the programmer's shoes — would you want people to distribute your property without your permission? A data library file is not just bytes on a diskette. It is property as real as your computer, as real as the magazine you hold in your hands. A good program represents hours of hard work. Don't make that work worthless by stealing it.

I use CheckFree for my CompuServe bill. I just changed banks, and I'd like to know the best way to get the bill re-routed. Should I write through Feedback or send a letter?

None of the above. When you change your billing arrangement in any way, use the billing program to inform CompuServe. Even if you want to simply switch to a different credit card, entering GO BIL at any prompt will send your new information to the right CompuServe department faster than any other form of communication.

My terminal uses shorter lines than the system. I'm tired of trying to read a whole line, followed by half a line, followed by a whole line. Can I tell CompuServe how long my lines should be?

You certainly can. By typing GO DEFALT, you can reset your online "default" settings, the parameters you automatically find whenever you log on. The DEFALT program allows you to change line-length, software protocol settings, the initial program you run when you first connect to CompuServe, and, for those of you who use printers rather than screen terminals, the delay time after each line of copy. You also can choose to make the new defaults permanent or only for the current telecomputing session.

Why would you want a temporary change in your defaults? There are times when such versatility is quite helpful. For example, I have a terminal that uses a variety of typefaces on its screen. Some are larger than others, making them ideal for some editing jobs. Those larger typefaces, however, take up more screen space and can overflow the screen edges. So, when I'm capturing a file I'll be editing with a large typeface, I first reset my defaults so that my line length is shorter than the usual 80 characters per line. Since I've chosen to change my default settings only temporarily, I need not return to the DEFALT program to return to my old settings. The next time I log on to CompuServe, the defaults are back to normal.

When I try to upload a file to CompuServe, the system chokes on my file. Sometimes it just freezes, and sometimes I'm knocked offline. What am I doing wrong?

It's not you. It's your software. Many word-processing programs use control codes to format a file. When you hit your tab key, the program inserts an invisible code into the file. You see only an indented line, but the software sees that code.

CompuServe's software uses control codes for purposes of its own. The CONTROL-C, for one, is an all-purpose break character, permitting you to bail out of almost any program on the system at any time. So when your text file has a CONTROL-C embedded somewhere, you might not see it, but the network will.

Next time you want to send a textfile, instead of saving it as a word processing file, see if your software permits you to save it as "text only," or as "ASCII." Such files use no control codes, ensuring a clean transmission. If your software lacks this option, try creating the file without using tab keys, paragraph markings or special columns. It may not always solve your problem, but it should minimize it.

I've never written to anyone listed in the magazine before. Do you answer all of your mail?

I do my best! If you have a question to ask, a comment to make, or a suggestion to offer, feel free to send me an EasyPlex. Who knows? Next year, you may see your question in this space.

Alex Krislov is a free-lance writer from Cleveland. His CompuServe User ID number is 70007,2130.

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Perfect Prescription

Custom Communication Packages Aid Pharmaceutical Industry

Timely and accurate communication is often the key to doing business efficiently — and that's why many pharmaceutical manufacturers, distributors and retailers are adopting computer-age techniques to improve their communication processes.

Many of these pharmaceutical firms meet special needs through CompuServe's custom communications packages, including InfoPlex, a private electronic mail service; Interchange, a customized videotex service; and Network Services, a multi-city computer network. Specialized products such as a research and development aid known as Computer-Optimized Experimental Design, financial databases and demographic databases also are available.

"We offer a wide range of products that can be tailored for whatever an individual company requires," explains Ed Klinker, manager of commercial marketing programs for CompuServe.

"Because CompuServe accommodates frequent information updates and instantaneous delivery of information 24 hours a day, companies are able to improve employee productivity and efficiency and improve service to their customers," he adds.

Some firms use InfoPlex to enable staff members at company headquarters to exchange messages and customized forms with a select audience, such as sales representatives, regional office staffs or major customers. Companies can use the forms capability in InfoPlex for various applications such as sales activity reports, product ordering and surveys.

Other firms choose to use Interchange, which can include several components depending on a company's individual needs. The basic components of Interchange are InfoPlex (electronic mail and forms) and videotex for electronic publishing of databases, newsletters, company policy statements and other information. Interchange's conferencing and electronic mail capabilities enable employees to communicate with one another and with frequent external contacts such as suppliers, sales people and customers.

Through Interchange, a company could develop a product database for providing the latest information about various drugs — by product name — while listing product enhancements, competitive products, sales tips and pricing information. Interchange also can be customized to offer a daily product inventory and new product status reports that keep key personnel up-to-date on the latest company developments. A product forum can be included in an Interchange service to give a drug company valuable feedback from doctors and pharmacists, while the company could use a leads database to keep the sales force abreast of new opportunities.

Portions of the CompuServe Information Service also can be incorporated into a company's Interchange service. For instance, financial databases help pharmaceutical executives make business-related decisions. Travelshopper enables them to book their own travel arrangements. Another CompuServe product, the Executive News Service, is used by some pharmaceutical firms to help track competitive products and industry developments.

Closing out paperwork: *Clarke*

Companies also may choose to use CompuServe's Value-Added Network, creating a communication link between a company's computer centers or locations to enable select audiences to access information stored on the company's mainframe computers.

For many pharmaceutical firms, these modern communications products have simplified the process of doing business. Syntex Laboratories Inc. began using InfoPlex two years ago. "We currently are using it as a network between the central office and 10 regional offices," explains John Taylor, manager of sales systems.

The company's InfoPlex system handles communications once conducted by mail or telephone. Through the system, sales representatives are informed of new company developments. They can send succinct messages, and no longer waste time trying to locate coworkers, thereby using their time more efficiently. The service is reliable and easy to learn, according to Taylor.

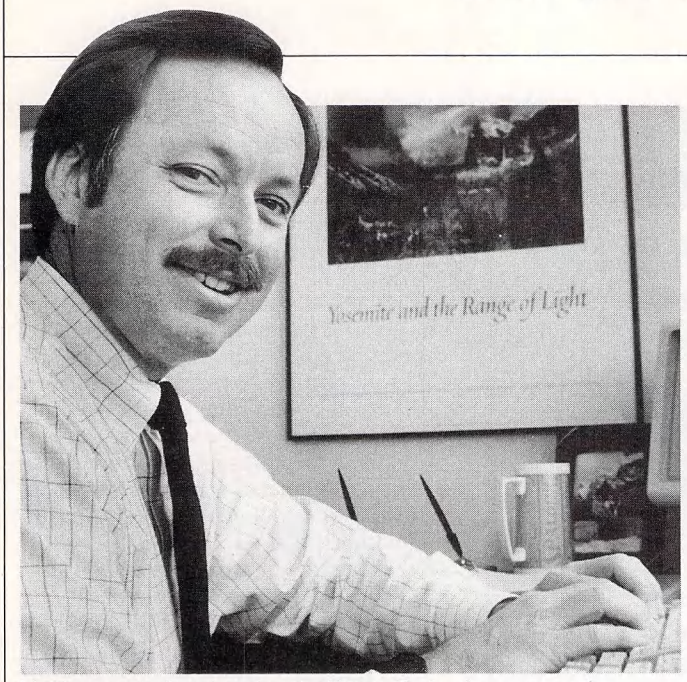
Another InfoPlex user is Beckman Diagnostics, a manufacturer of sophisticated equipment for hospital laboratories. Thirty-five key field service people use the system, and it may one day be expanded to serve all 250 service representatives.

Not only has InfoPlex added immediacy to the firm's messages, but also since its addition, "The amount of communication has increased dramatically," says Dale Lam, technical support specialist. Field service representatives now communicate among themselves as well as with manufacturing and engineering staff members. "Before, there was never communication between those specialists in the field because they couldn't reach one another," Lam notes.

The service people now use InfoPlex to share new repair techniques among themselves. When repair questions arise, they often find it helpful to question staff members in manufacturing and engineering. "The thing that impressed our management most was the charts that showed the hours of the day where there is usage of the system," says Lam. Those charts show that the system is used 24 hours a day and is frequently accessed at such off-hours as 1 a.m.

This information has painted a new picture of service representatives' work activities. "It's evidence of their own dedication, but it also shows that their working day has been extended," Lam says.

The Parke Davis Division of Warner Lambert also uses InfoPlex to send messages between its regional offices and its headquarters. The custom-designed forms capability within InfoPlex relays information that requires



Linking central and regional offices: *Taylor forms network*

Mixing compounds electronically: *Kent asks "what if"*

a fast turnaround, such as bids, proposals and sales reports. Vital information like sales bulletins, product information and pricing information also is sent daily so that key staff members are informed of new developments by the end of the day.

Hospitals seeking bids from Parke Davis fill out customized online bid forms. Other forms on the system relay information on personnel changes to the company's human resources offices. After five years of use, the InfoPlex system has become a habit with Parke Davis staff members. "It's very convenient," says Bob Luchsinger, director of sales, planning and systems.

For research, some pharmaceutical firms turn to a CompuServe research and development product known as Computer-Optimized Experimental Design. COED allows researchers to decide which combinations of ingredients should be tried in experiments to achieve the best results.

"In putting together any product, we'd like to have the optimal configuration," explains John Kent, Ph.D., director of pharmaceutical development for Syntex Research. "In pharmaceutics, there is a tradeoff between certain parameters." For instance, a tablet has to disintegrate well within the body yet be stable enough within its packaging to withstand shipping.

Through COED, researchers can ask "what if" without committing time and expense to conducting actual experiments. For example, an experimenter can give COED three temperatures, four concentration levels of a given chemical and two speed settings on a machine. COED then will suggest which experiments should be performed and determine how many experiments are needed to fully understand the problem. "The greatest advantage of COED is that it allows you to do fewer experiments and to gain more information," Kent explains.

Syva, a company owned by Syntex, uses CompuServe's Interchange system. Syva, a manufacturer of chemicals and instruments used in hospital laboratories, dispatches nine home-based service representatives to hospital laboratories across the country. According to John Clarke, national manager of field service engineering, the greatest benefit of the service has been its messaging capabilities.

At one time, a field service coordinator dispatched service representatives by phone, making repeated phone calls to each person. Now, she devotes only a small portion of her job to dispatching. At the end of the day, she simply enters the following day's schedules on InfoPlex, and service representatives check their schedules at their convenience. This system has freed the field service coordinator to take on additional job responsibilities.

While in the field, Syva's service people also use InfoPlex for its messaging capabilities. When a repair has been made, a service representative immediately fills out a service report and sends it, via a portable terminal, to accounting, and customer control or the appropriate department.

To maintain an accurate inventory, service reports serve as reorder vehicles for parts. Receipt of parts also is immediately reported through the system. Information on service calls is much more current now than when reports were prepared manually. "We were two weeks behind ourselves all the time in knowing what the problem was and how it was resolved," Clarke explains. Now, paperwork is closed out within 24 hours after repairs are completed.

Service representatives also use the system to document administrative time spent on their jobs while at home.

As an added help, they turn to Travelshopper on their Interchange system to book flights. "It sure beats calling a travel agent and having to run over and pick up your tickets." Clarke says.

When the system was new, Clarke was concerned that it would eliminate the personal touch from communications; however, he was quickly sold on its efficiency. "About 90 percent of the calls I make don't require an immediate answer," he notes. Due to the system, "telephone tag has gone away," he adds.

Syva has realized several additional benefits from its Interchange system: Customer service has improved. Engineers get call requests faster and therefore respond more quickly. Reorder capabilities keep needed parts in stock. Management is assured that vital messages have been received. More immediate access to paperwork allows for better management control.

InfoPlex is a registered trademark of CompuServe Incorporated.

— Kathy Baird

Prices Simplified for Market Quotes

CompuServe Information Service subscribers who own securities and use two financial products from CompuServe — Quick Quote or MicroQuote II — to follow market activity can now do so at reduced rates.

On March 13, CompuServe simplified the rates structure for retrieving market quotes on stocks, mutual funds, commodities and other securities for users of MicroQuote II or Quick Quote. This change means significant savings for many CompuServe Information Service subscribers. In addition, the Executive Option 25 percent discount on market quotes now applies to commodities prices as well as stocks, bonds, options, mutual funds, foreign exchange rates and market indexes.

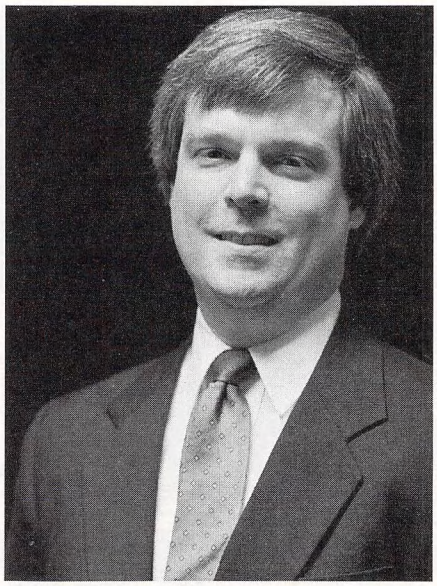
"Because of the large growth in the popularity of our financial products, we decided it was important to simplify our pricing rates and make them easier to understand and remember," says Scott Clyde, manager of financial products for the CompuServe Information Service. "The way we accomplished that was to take the low side of the price range for each service. For example, stock quotes from the most recent closing date used to cost from 2 to 10 cents. The price is now 2 cents.

"We're passing along a significant savings for some applications. We have some subscribers who really make out on the deal; however, nobody's price increases."

MicroQuote II offers access to day-by-day historical information since 1973 on more than 90,000 stocks, bonds, options and mutual funds as well as foreign exchange rates and more than 200 market indicators. Dividend, interest payment, mutual fund distribution and split data is available as far back as 1968. MicroQuote II also contains data on earnings, risk and capitalization. Automated and manual quality assurance procedures make the data quite accurate.

MicroQuote II is also unique in the variety of online analysis and monitoring tools it makes available to individual investors — from screening, charting and return analysis to portfolio reporting, downloading and quote sheets.

Quick Quote provides access to stock quotes 20 minutes after each trade; this is as soon as the exchanges allow access without payment of monthly access fees. Trades come from the New York, American and regional exchanges as well as from the NASDAQ for national market issues. Quotes come from NASDAQ for other over-the-counter securities.



Some subscribers will really benefit: *Clyde*

Benefitting the most from the changes, according to Clyde, are microcomputer subscribers who download large amounts of pricing information into software packages for analysis.

"Commodity quotes in particular are more affordable," Clyde reports. For example, five years of weekly quotes for one commodity used to cost $41.60. Now the cost is $13."

He continues, "More and more computerized investors are using specialized programs to track security prices and produce winning investment strategies. To be successful, these programs require data over several years and preferably several market cycles."

The changes are as follows:

- Current stock market quotes that formerly cost 10 cents per issue cost 7 cents.
- Stock quotes from the most recent closing date that used to cost from 2 to 10 cents now cost 2 cents.
- Historical quotes on stocks that formerly cost from 5 to 15 cents now cost 5 cents each.
- Commodity quotes formerly priced from 8 to 24 cents now cost 5 cents each.
- Cusip/Ticker lookup is offered on an unlimited basis for only 25 cents.
- Securities screenings that formerly cost from $5 to $10 per screen now cost $5. The 25 cent charge for each security displayed remains.
- Price movement statistics that used to cost $1.25 to $2.50 now cost $1.25.

— Robert Loomis

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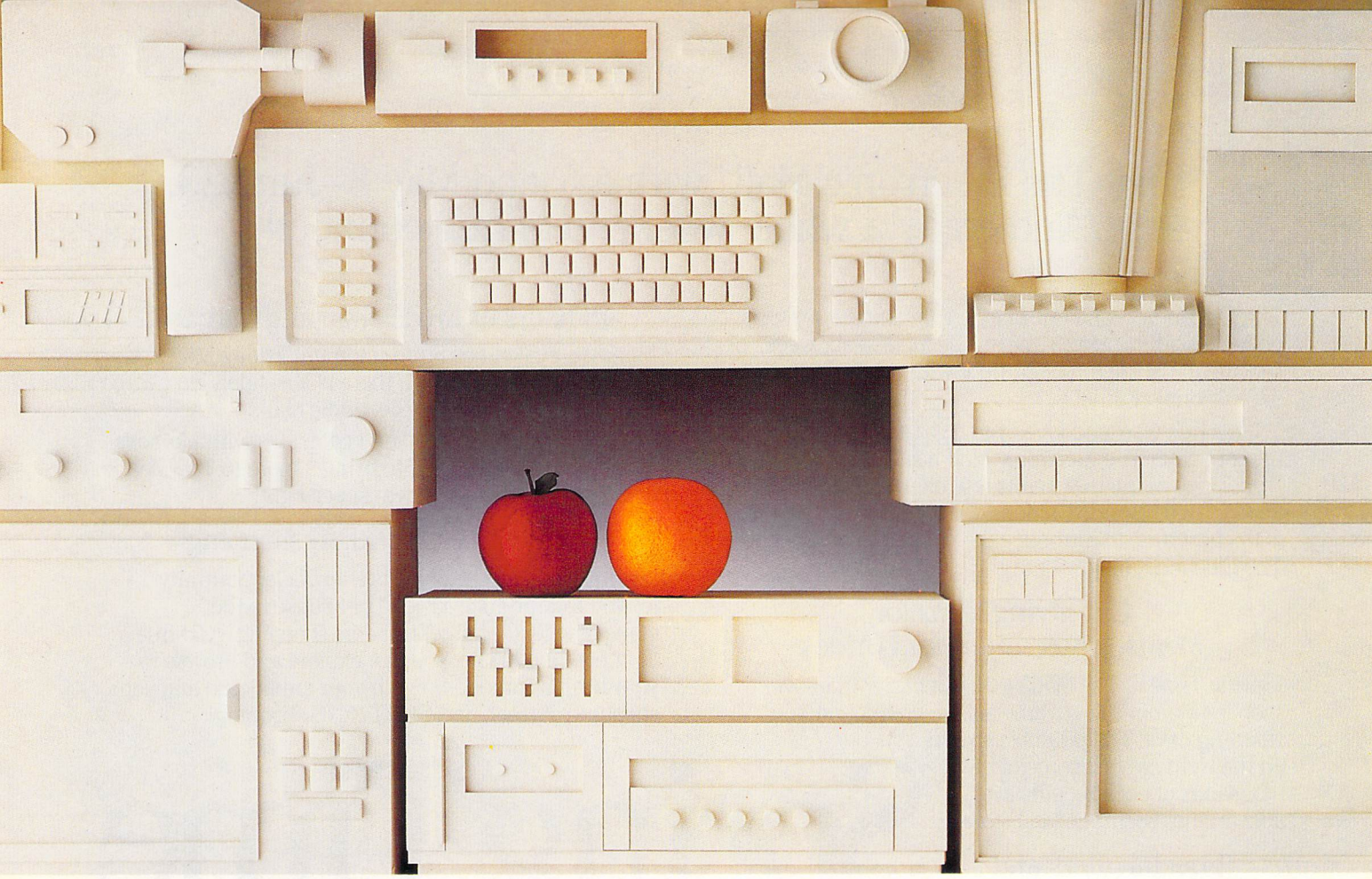
Carve out a Market with New SuperSite

A new version of SuperSite is now available on the Executive Option of the CompuServe Information Service. In addition to retrieving information by ZIP code and county, users may now obtain demographic information for the entire United States, each state, Standard Metropolitan Statistical Area, Arbitron television market and Nielsen television market.

In addition, this version of SuperSite includes four new reports. Two of these, the Combined Demographic and Income Forecast and the Forecast Summary, include information for 1980, 1985 and 1990.

The other two reports represent the release of the ACORN Target Marketing System. ACORN, A Classification of Residential Neighborhoods, classifies all U.S. households into one of 44 market segments based on demographic, socioeconomic and housing characteristics of the neighborhoods. ACORN is also linked to direct mail lists, enabling a business to target its customers and prospects more precisely. The two new ACORN reports in SuperSite are the Household Profile and the Population Profile.

The pricing in the new version of SuperSite has changed. All reports now are in one of the following price categories: $25, $50, $75 or $100. Report prices are displayed on all report menus. There is no extra charge for combining several geographic areas into one market. GO SUPERSITE



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Visit The Electronic Mall™ with a friend May 8–June 23. And enjoy a whole weekend of free connect!

The Electronic Mall celebrates spring and the season's holidays with "Spring Time at The Mall"—six weeks of spectacular shopping beginning with a full weekend of free connect time!

This free weekend gives you a great opportunity to find out what The Electronic Mall has in store for you. And, since many merchants will offer special promotions geared towards women, "Spring Time at The Mall" is the best time to introduce the women in your life to The Electronic Mall.

Gift-giving ideas for Moms, Dads, Grads and Brides

"Spring Time at The Mall" makes it easier than ever to shop for Mother's Day, Father's Day, graduation and wedding days. The products shown on the right are just some of the thousands of exciting gifts available at The Electronic Mall stores.

Special offers and promotions for everyone

To celebrate "Spring Time at The Mall," merchants are offering discounts, premiums and specials designed to help you catch spring shopping fever. For example, for women—and anyone shopping for women—Milkins Jewelers is sale pricing jewelry, Ecopress is offering books giving investment advice, American Express is featuring Food and Wine cookbooks, and Birkenstock Footwear is offering free tote bags when you purchase their sandals.

In addition, Sears Roebuck and Co. is featuring an "Especially for Her" database filled with exciting gift ideas. It's a great place to start when you're looking for Mother's Day, wedding or graduation presents! Or you can shop "Women's Wares," a special database of some of The Mall's best picks.

Of course, you'll also find gifts for all the men on your Father's Day and graduation lists, plus items you'll want for yourself.

There's a sale on select magazines from EBSCO Magazine Entree. Lenox of Fairfield is offering Dunhill pens, Rin Robyn Pool & Patio has a hammock for lazy summer days, and Carolina Health & Fitness has a pet chameleon— ideal for the man who has everything.

48 hours of FREE shopping May 9–11

Mark your calendar! From midnight Friday, May 9, to midnight Sunday, May 11, there is absolutely *no charge for connect time* on The Electronic Mall.

This free-connect weekend coincides with Mother's Day—so it's a great time to bring a mom to The Mall and let her shop for her own special gift!

How to GO SPRING shopping

"Spring Time at The Mall" is a terrific opportunity for you to introduce a friend or spouse to the convenience of on-line, in-home shopping. And free connect time means you can explore and browse to your heart's content. So grab your credit card and your shopping partner, and GO SPRING shopping!

Spring Time at The Mall

Once you access CompuServe, just type GO MALL or GO EM, or during our special promotion, GO SPRING. Different directories, including "Spring Time at The Mall," give you a number of shopping options. Enter any store by typing "GO" and the store's two- or three-letter acronym, or "FIND" and the name of the store. Problems? "HELP" will get you instructions.

Ordering is easy. After you've read the description of the item you want to purchase, simply type the letter "o." This reserves the product for you.

When you're ready to leave the merchant's store, an order form will appear. Just fill in your mailing and credit card information, and you'll receive an order confirmation number. It's that easy! And there's never a membership fee to shop The Electronic Mall!

Ready to catch spring shopping fever at The Electronic Mall? Starting May 8, to join us for "Spring Time at The Mall," just type "GO SPRING!"

Ladies' and Men's Seiko Watches
Save 25%
Lenox of Fairfield
GO LNX

Danish Freehand Pipes
$30.00 each
Topgar Tobacco
GO TG

Floating Fone Reg. $174.95,
On Sale $149.95
and Rubber Duck $4.95
Rin Robyn Pool & Patio
GO RR

Be My Guest® Restaurant Certificate
Any dollar amount
American Express
GO AXM

Food and Wine Cookbooks
$19.95 each
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Sony® Programmable Compact Digital Audio Disc Player $399.00
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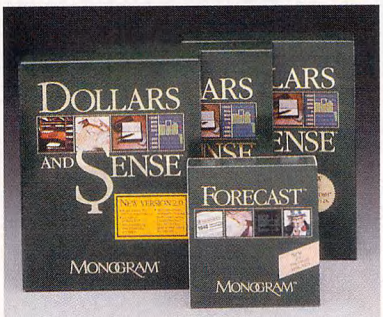
GO AXM



Dollars & Sense™ and Forecast® Software $41.97—$107.97
Computer Express
GO CE

The "Arizona" Sandal
$52.00
Birkenstock Footwear
GO BF

Hershey's Kiss Sterling Silver Necklace $19.95
Milkins Jewelers
GO MJ

Hand Crafted Leather Bags
$9—$69
Woodstock Leather
GO BAG

Leica R4 Camera & Winder w/50 mm Summicron
$1399.00. Leitz Trinovids $269.00
Camera One of Sarasota
GO CAM

Vermont Picnic Basket,
Fully outfitted, $85.00
The Hobbit Hole
GO HH

Vitamins, Minerals and Creams
$6.95—$17.95
VitaMenagerie
GO VM

John Cougar Mellencamp "Scarecrow" CD $15.98
Express Music CD
GO EMC

"Bits & Pieces" Magazine $15.00 1 yr.
Two or more subscriptions, $11.88 each
Ecopress—Business Training Publs.
GO ECO

DX21 Yamaha Digital Synthesizer
Use EasyPlex for latest discount price!
Music Alley Online
GO MAO

One Dozen Long-Stemmed Roses
$50.00
Walter Knowles Florists
GO WK

THE ELECTRONIC MALL™

GO EBB or circle 42 on the Reader Service Form.
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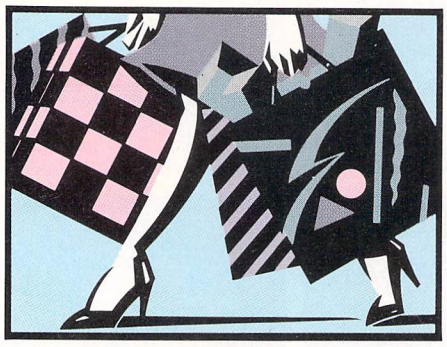

Inside The Mall

These days, a woman's life is busier than ever. With home, family and job, who has time to shop? You do, with The Electronic Mall, where convenience is the key.

You'll find over 85 stores at your fingertips. Shop from such well-known retailers as Sears, Roebuck & Co. (GO SR), American Express (GO AXM) and Record World (GO RW). Or visit one of the many specialty shops such as Lenox of Fairfield (GO LNX), French Films on Video (GO FF) and The Lobster Market (GO SEA).

Here are a few of The Mall stores a woman on the go should know about:

Waldenbooks (GO WB). Shop for everything from today's best-selling fiction to one-of-a-kind autographed science fiction titles to foreign language audio tapes. Waldenbooks features an online catalog of popular children's books, software and classics. You also will find a wide selection of bargain books.

Simon David (GO SIM). There's no better way to say "thank you" to friends, relatives and business associates than with a gourmet gift from this famed Dallas specialty shop. Choose from chocolate truffles, gourmet gift baskets, smoked meats or exotic treats like rattlesnake meat.

Milkins Jewelers (GO MJ). Indulge yourself and choose from diamonds, rubies, pearls and more. You'll also find many special and unusual gift items, such as silver pasta scoops, pizza cutters and gold "dog tags."

Max Ule & Co. (GO MU). Max Ule puts stock information and ordering capabilities at the command of the professional woman. Log on for daily closing quotes or for buying and selling stocks, bonds and options.

May is a special month for women who visit The Mall. Watch for online announcements of special promotions, prizes and events.

APPAREL/ACCESSORIES

ATH	Athlete's Outfitter
APC	Apparel Concepts
BF	Birkenstock Footwear
RF	International Fur Wholesalers
FP	Just for Fun T-Shirts
LNX	Lenox of Fairfield
MJ	Milkins Jewelers

AUTO

AMS	AMS/Oil Dealer
ATB	American Tire Buyers
BU	Buick

BOOKS

BB	Bantam Books
DII	Christian Book Store
MH	McGraw-Hill, Inc.
MER	Mercury House
WB	Waldenbooks Co., Inc.

CAREER/SELF-HELP

TDG	Teledata*Guide
WS	Wayside Systems

COMPUTING

CPG	Compu-Game
CE	Computer Express
HTH	The Heath Company
DSK	1-800-Floppys
MM	Marymac Industries Inc.
MO	Misco Computer Supplies
SR	Sears, Roebuck & Co.
SDA	Software Discounters of America

FINANCIAL

CN	Colonial National Bank
EL	Equitable Life
MU	Max Ule Discount Brokerage
SLG	Sun Life Group

GIFTS/GOURMET

FTH	Fifth Avenue Shopper
FFS	Florida Fruit Shippers
SDG	The Grower's Store
HH	Hobbit Hole/Wyandotte Wines
SEA	Lobster Market
NUT	Morrow's Nut House
SIM	Simon David
TG	Topgar Tobaccos

HOME/LEISURE

CC	Cosmic Concepts
GG	The Game Getters, Inc.
MOM	Mom's Wish-A-Gift
MAO	Music Alley Online
RR	Rin Robyn Pool & Patio

MERCHANDISE/ELECTRONICS

AXM	American Express
KO	Eastman Kodak Co.
EE	Electronic Experts
EGS	Electronic Gadget Store
ELM	Electronics Mart
NCS	Nationwide Catalog Shopper
SR	Sears, Roebuck & Co.
SUN	Sunland Camera
XDM	Xerox Direct Marketing

ONLINE SERVICES

EF	EF Hutton
GLO	Globalink
NN	NewsNet
OA	Official Airline Guides
VL	Videolog Electronics

PERIODICALS

CW	CW Communications
DJ	Dow Jones & Co.
ME	EBSCO Magazine Entree
ECO	ECOPRESS
US	USA Today

PREMIUM MERCHANTS

BL	Bloomingdale's By Mail
TIF	Tiffany & Co.

RECORDS/MOVIES

CF	CBS/Fox Video
EMC	Express Music CDs
FF	French Films on Video
MV	Magic Castle Video
RC	RCA Direct Marketing
RW	Record World

SPORTS/HEALTH

BP	Barracuda Sports
BS	Berry Scuba Co.
HF	Carolina Health & Fitness
VM	VitaMenagerie

TRAVEL

AF	Air France
AA	American Airlines
WL	Worldwide Property Guide

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Reference with a difference.

You enter IQuest through a single convenient electronic gateway — GO IQuest. You use a single set of search routines. Regardless of where in the network nation that IQuest finds the information for which you're searching, you retrieve it instantly, directly through CompuServe. And your entire bill for the service is included in the single payment you make to CompuServe each month!

Canvass thousands of pages of data. Pinpoint the very information that makes a case, solves a problem, or broadens input on a complex issue. Eliminate long research hours. Avoid frustrating blind alleys. Do it all so quickly, your modem isn't even warm.

Don't be misled. IQuest is for you.

You may be a tempted to think IQuest is a perfect service for someone else. Not for you. A librarian maybe. Or a college student.

You'd be wrong.

It's near certain that IQuest includes a database that would make your life easier. One that would make your time at work more productive. Another that would make your time away from work more rewarding. And still others that more wisely invest time now spent marching in traditional reference circles.

- Established Businesses: Arm Researchers With A Strategic Weapon
- Growing Businesses: Acquire A Researcher Without Overhead
- Adult Students: Work Smarter Not Harder
- Elementary, High School or College Students: Turn In Turbo Term Papers

Shorten your THINGS TO DO list with IQuest.

IQuest couldn't be simpler to use. GO IQuest at any ! prompt. IQuest relies on menus and prompts to help you narrow a world of online data to the neighborhood of your topic, then requests keywords.

It's just that easy.

What's more, these are the *only* steps you'll ever have to learn to perform *any* search on the hundreds of databases IQuest encompasses. Because IQuest automatically translates your search criteria into commands recognized by the selected database. It logs you on, searches, logs you off and returns the results to you.

The price of convenience.

IQuest's billing structure is equally simple. The costs for use of the service are uniform:

- Standard connect time charges are in effect.
- A single, fixed charge accompanies each search (a few databases do assess a surcharge and indicate so prior to a search).
- Any additional charges accrue on a per-item-of-information-retrieved basis.
- Each session is fully itemized on the final screen before leaving the IQuest area.
- Any outstanding IQuest charges are included in your monthly CompuServe bill.

Next project, exhaust a topic online, before fraying your nerves on foot.

You'll find IQuest an indispensible tool, no matter what form your need for information takes. Use this powerful service to write and reason more authoritatively, instill confidence in your decisions, and create time to act on the gems you've dug up.

Discover IQuest on CompuServe. It's *reference with difference!*

IQuest Sample Search

Here's a step-by-step look at how to use IQuest-I to perform an online search. You'll notice that IQuest-I begins with a set of prompts that help you select an appropriate database to search. If you had a particular database in mind where you expected to find information about your topic, you would select IQuest-II which would then prompt you for the name of that resource.

IQuest Navigational Command Summary

The same navigational commands you use to travel the CompuServe Information Service are in place in the IQuest database.

Type	Action
B	To back up one screen
T	To return to the IQuest Main Menu
Exit	To leave the IQuest database
H	To display online HELP information
Off	To log off the Information Service
SOS	To summon online assistance from an IQuest research specialist

Step #1

Select IQuest-I if you don't know which database fits your topic.

```
PRESS     TO SELECT

  1  IQuest-I    We pick the
     database
  2  IQuest-II   You pick the
     database
  H  Help
Total charges thus far : $0.00
-) 1
```

Step #2

Use the menus to describe your topic. In this example we selected Subject.

```
PRESS     TO SELECT

  1  Subject
  2  Person
  3  Place
  4  Organization
  H  Help
Total charges thus far : $0.00
-) 1
```

Step #3

Choose from the main subject topics. Here, we selected Business.

```
PRESS     TO SELECT

  1  Current Events
  2  Business, Economics
  3  Sci/Tech, Computers,
     Medicine
  4  Law, Trademarks, Patents
  5  Social sciences, Education
  6  Art, Literature and
     Entertainment
  7  Religion, Philosophy
  H  Help
Total charges thus far : $0.00
-) 2
```

Step #4

Further qualify topic. We chose Economics.

```
PRESS     TO SELECT

  1  Accounting
  2  Banking and investment
     services
  3  Corporate information
  4  Economics
  5  Finance
  6  Insurance
  7  other choices
  H  Help
Total charges thus far : $0.00
-) 4
```

Step #5
Select a source of information from various media. We chose Professional journals.

```
PRESS     TO SELECT

  1  Professional journals
  2  Popular magazines
  3  Books on economics
  4  Encyclopedias
  H  Help
Total charges thus far : $0.00
-) 1
```

Step #6
Enter the words you would like to search for. Notice that we have used the wild card ("/") to find variations of "telecommute" (telecommuting, telecommuter, etc.) We also used "and" and "or" to qualify our search. This search will find articles on telecommuting as well as articles with the words "computer", "work" and "home" all included.

```
Enter your economics topic.

(type H for important examples)
   or B to back up)

-) TELECOMMUT/ or (COMPUTER/
   and WORK and HOME)

Is:
TELECOMMUT/ OR (COMPUTER/ AND
 WORK AND HOME)
 Correct ? (Yes/No) -) Y
```

Step #7
IQuest determines the database to be searched and performs the search. Here, the ABI/INFORM database was accessed and the search found 80 articles.

```
System is searching the
ABI/INFORM database,
copyrighted 1986 by Data
Courier, Inc., Louisville, KY,
and available through BRS
Information Technologies.

Accessing Network.(Standby).
 Connected.
Accessing Database Vendor...
 Completed.
Submitting User name.........
 Completed.
Submitting Password.........
 Completed.
Selecting Database..........
 Completed.

Each star equals one line
of retrieved data.  This may
take several minutes...
************************
************************
************************
*********
Search completed............

There are 80 item(s) which
satisfy your search phrase.

We will show you the most
recent 10
```

Step #8
IQuest displays the 10 most recent titles (complete with bibliographic references).

```
Heading # 1

AN 86-06192. 8602.
AU Grevstad-Eric.
TI Telecommuter: Laptop Meets
   Desktop.
SO Tele: The Communications
   Magazine for Business.
   VOL: v1n4.  PAG: 68-71,
   4 pages.  Jan 1986.

                                  .
                                  .
                                  .

Heading # 10

AN 85-33212. 8510.
AU Antonoff-Michael.
TI The Push for Telecommuting.
SO Personal Computing.
   VOL: v9n7.  PAG: 82-92,
   8 pages.  Jul 1985.
Press (return) to continue...
-)
```

Step #9
Abstracts, photocopies of entire articles, or more titles may be selected from this menu. Here we chose to see an abstract.

```
PRESS      TO

  1   Review results again

  2   See abstracts (need
      heading #'s $2.00 each)

  3   Order reprints (need
      heading #'s)

  4   See next 10 headings
      ($7.00 extra)

  5   Start a new search

  6   Leave System

Total charges thus far : $7.00
-) 2
```

Step #10
Simply enter the heading number(s) of the title(s) for which you want to see an abstract.

```
The Heading numbers currently range
between 1 and 10

Enter the Heading numbers of the
articles for which you wish
abstracts.  Separate each number by
a comma.
Total charges thus far : $7.00
-) 10
```

Step #11
The abstract is retrieved and then displayed.

```
Heading # 1

AN 85-33212. 8510.
AU Antonoff-Michael.
TI The Push for Telecommuting.
SO Personal Computing.  VOL: v9n7.  PAG: 82-92,  8 pages.  Jul 1985.
CC 5250.
DE Work-at-home.  Trends.  Microcomputers.  Software-packages.
   Advantages.  Productivity.  Disadvantages.
AV ABI/INFORM.
AB Telecommuting is gaining momentum as personal computers
   increasingly gain acceptance.  In 1984, there were an estimated
   100,000 telecommuters working for 400 companies. According to Gil
   Gordon, a consultant who publishes a newsletter about
   telecommuting, 10 million employees may work remotely by 1990.
   It has also been estimated that up to 20% of the Fortune 500
   companies will have formal telecommuting programs by the
   mid-1990s.  Telecommuting affords many benefits to companies, such
   as the need for less office space.  Telecommuting also offers a
   way to keep skilled workers and reduce recruiting and training
   costs.  For employees, telecommuting reduces transportation costs
   and makes it easier to take care of family responsibilities.  In
   one study on telecommuters, it was found that telecommuting
   results in improved employer-employee supervision.  However, labor
   unions have voiced opposition to the telecommuting trend.  They
   fear the electronic cottage may turn into an electronic sweatshop.
   Tables.  Graphs.
```

IQuest Keyword Selection

Simplify your entry by omitting common words such as: OF, THE, FOR, AT, BY, TO, etc.
EXAMPLE: STATE UNION instead of STATE OF THE UNION.

Retrieve only the most relevant articles by using words and phrases that are unique and specific.
EXAMPLE: CONVERTIBLE rather than AUTOMOBILE for cars of that particular model.

Don't worry about using upper or lower case letters.
EXAMPLE: Brazil, brazil, and BRAzil will all be treated the same way.

Retrieve all words that begin with the same letters by using a slash (/) as a "wild card" at the end of a word.
EXAMPLE: COMPUT/ will retrieve COMPUTE, COMPUTERS, and COMPUTING.

Multiple Keyword Selection

Narrow your search by using AND.
EXAMPLE: ASTRONAUT AND GEMINI will retrieve only items which include both of these keywords.

Broaden your search by using OR.
EXAMPLE: ASTRONAUT OR COSMONAUT will retrieve items which include either phrase. This is especially helpful when using synonyms e.g. DATSUN OR NISSAN.

Exclude a concept from your search with NOT.
EXAMPLE: WIMBLEDON NOT SINGLES will retrieve all items with the word "Wimbledon" except those that contain "singles". Note: NOT is exclusive. This search would ignore an article like: "Wimbledon Singles Crown Awarded — Doubles Play Moves to Center Court".

Indicate which concepts are to be considered together by using parentheses ( ) around groups of words that you have combined with AND, OR, or NOT.
EXAMPLE: ASPEN AND (DOWNHILL OR CROSS COUNTRY) is different than (ASPEN AND DOWNHILL) OR CROSS COUNTRY. The former will retrieve every article that includes "downhill" or "cross-country" along with "Aspen". The latter will retrieve information about cross-country skiing anywhere, along with every story about downhill skiing in Aspen.

IQuest Database Directory

ACCOUNTING

Accountants
American Banker
Banking Regulator
Corporate EFT Report
Credit Union Regulator
EFT Report
FOREX Commentary
FOREX Watch
Financial Services Week
Management Contents
Marketwire

AEROSPACE

Compendex
EI Engineering Meetings

AGRICULTURE

Sales Prospector/TX OK NM
Sales Prospector/WI MN IA ND SD
Abstracts of Tropical Agriculture
Agricola
Aquaculture
CAB Abstracts
Coffeeline
Current Research Information/USDA
FAIREC: Tropical and Citrus Fruits
Foods Adlibra
Food Science and Technology Abstracts
Forest Products
Ialine: Agriculture and Food Industries
World Food and Drink Report

ARCHAEOLOGY, ANTHROPOLOGY

FRCIS-S: Social Sciences
FRCIS-H: Humanities

ART

Artbibliographies Modern
Art Literature International

BANKING AND CREDIT

American Banker
Banker
Banking Regulator
Corporate EFT Report
Credit Union Regulator
EFT Report
Financial Services Week
Management Contents
* BANQUE: French Banking Law

BIOLOGY

REMARC
Air Pollution Technical Information Center
Antarctic Bibliography
Aquaculture
Aquatic Sciences & Fisheries Abstracts
BIOSIS Previews
CAB Abstracts
Current Biotechnology Abstracts
Ecothek: Local Environment
Enviroline
Environmental Bibliography
Foods Adlibra
Forest Products
LABINFO: Research Activities & Services
Laboratory Hazards Bulletin
Life Sciences Collection
Oceanic Abstracts
Pacific Islands ECOSYSTEMS
Pascal: CNRS-CDST
Pollution Abstracts
Telegen
Water Resources Abstracts
Zoological Record
* Hazardline

CHEMICALS

Air/Water Pollution Report
CIM: Cements and Hydraulic Bindings
Chemical Engineering Abstracts
Hazardous Waste News
IFP-TH: Properties of Compounds & Mixture
JANSSEN: Chemical Product Catalog
Nuclear Waste News
Sludge Newsletter
State Regulation Report: Toxics
Toxic Materials News
Toxic Materials Transport
Toxic Substances Control Act
* Fine Chemicals Directory

CHEMISTRY

Chemical Regulations and Guidelines System
Chemical Abstracts
Chemical Abstracts Source Index
Chemical Exposure
Chemical Industry Notes
Claims/Compound Registry
Food Science and Technology Abstracts
IFP-TH: Properties of Compounds & Mixture
Index Chemicus Online
JANSSEN: Chemical Product Catalog
Kirk-Othmer Encyclopedia of Chemical Technology
Pascal: CNRS-CDST
Toxic Substances Control Act
* Chemname
* Chemsearch
* Chemsis
* Chemzero
* Fine Chemicals Directory
* Mass Spectrometry Bulletin

CIVIL

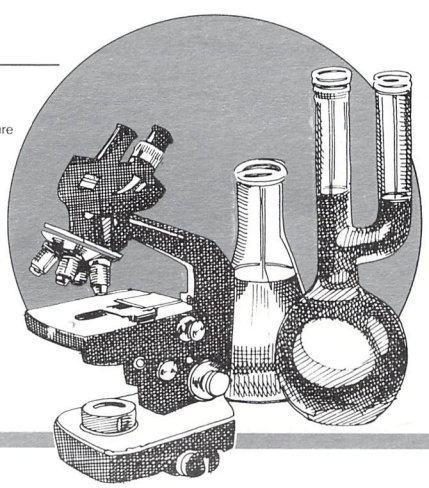
Compendex
Defense Industry Report
Defense Research & Development Update
EI Engineering Meetings
Japanese Aviation News: Wing
Satellite Week
Space Calendar
Space Commerce Bulletin
Star Wars Intelligence Report
Spacetime

CLASSICAL MUSIC

RILM Abstracts

COMPUTER

BOC Week
Biomedical Technology Information Service
Biotech Update
Bulletin Board Systems
Business Computer
Business Software Database
Cable and Satellite Express News
Cambron's BBS Directory
Cellular Radio News
Common Carrier Week
Communications Daily
Computerized Manufacturing
Computerpat
Computer Book Review
Computer Cookbook
Computer Database
Computer Market Observer
DBS News
Database Informer
Data Channels
Digital Bypass Report
Electronic Mail News
FCC Daily Digest
FCC Week
Fiber/Optics News
IDB Online - The Computing Industry Daily
INSPEC
ISIS New Electronic Media Newswire
ISIS Private Videotex System Database
Industrial Communications
Interactive Video Technology
Interconnection
International Communications News
International Videotex Teletext News
Japan Computer Industry Scan
Japan High Tech Review
Japan Semiconductor Quarterly
Long-Distance Letter
MENU-The International Software Database
Microcomputer Index
Micropublishing Report
Mini-Micro Bulletin
Mobile Phone News
McGraw-Hill New Business Books/Software
NTT Topics
Online Microcomputer Software Guide & Directory
Outlook on IBM
Personal Computers Today
Personal Computer Report
Public Access Videotex Directory
Report On AT&T
Report on IBM
Resources in Computer Education
Robotics Information
Robotronics Age Newsletter
SB-1: Dataprocessing, Applications
Satellite News
Satellite Television Newsletter
School Practices Information File
Semiconductor Industry & Business Survey
Seybold Report on Professional Computing
Software Imprint
Spang Robinson Report on AI
Stanley Klein Newsletter on Comp. Graphics
State Telephone Regulation Report



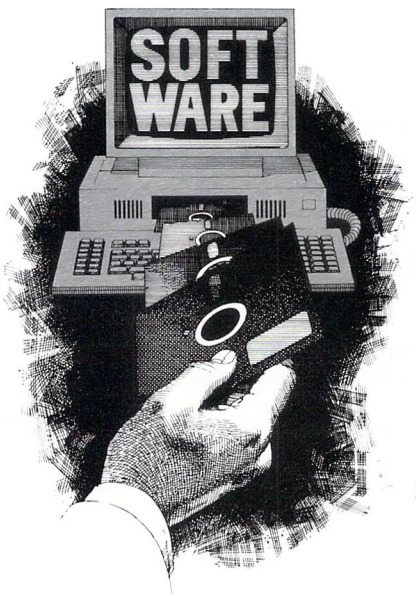
Stewart Alsop's P.C. Letter
Telecommunications Counselor
Telecommunications Reports
Telecommuting Report
Telecome Trade Reporter
Teledoc: Telecommunications
Telephone News
Tenant Communications
Unique: Your Independent UNIX/C Advisor
Videodisc and Optical Disk Update
Videotex Now Newswire
Videotex Products
Viewtext
Wiretap

DRUG INFORMATION

Drug Information and Alcohol Use and Abuse
Drug Information Full Text
Excerpta Medica
International Pharmaceutical Abstracts
Medline
Pharmaceutical News Index

EARTH SCIENCES

Air/Water Pollution Report
Antarctic Bibliography
Ecomine: Mining Economics
Environmental Bibliography
Environmental Compliance Update
GEOREF
Geoarchive
Geomechanics Abstracts
Land Use Planning Report
Meteorological & Geoastrophisical Abstracts
Oceanic Abstracts
Pascal: CNRS-CDST
Waternet
Water Resources Abstracts
World Environment Report



ECONOMICS

Abstracts of Working Papers in Economics
Boot Cove Economic Forecast
Consumers Union News Digest
Consumer Credit Letter
Consumer Electronics
Ecomine: Mining Economics
Economic Literature Index
Foreign Trade & Economics Abstracts
German Business Scope
German Business Weekly
Harvard Business Review/Online
Sales Prospector/CA AZ NV HI
Sales Prospector/Canada
Sales Prospector/CO ID MT OR UT WA WY AK
Sales Prospector/GA FL AL NC SC
Sales Prospector/IL IN
Sales Prospector/LA MS AR OK KY TN
Sales Prospector/MD VA WV NC SC DC
Sales Prospector/MO KS IA NB
Sales Prospector/New England
Sales Prospector/NY NJ Southern CT
Sales Prospector/OH MI
Sales Prospector/PA DE Southern NJ
Trade Opportunities
Trade Opportunities Weekly
* ECO: French Economic Law
* Foreign Traders Index
* PTS U.S. Forecasts

EDUCATION

Educators Database
A-V Online
ACS Directory of Graduate Research
Bilingual Education Bibliographic Abstracts
College Press Service
Educational Resources Information Center
Educational Testing Service Test Collection
Electronic Directory of Education
Exceptional Child Education Resources
Family Resources
Language and Language Behavior Abstracts
MLA Bibliography
NICSEM/NIMIS
Ontario Educational Resources Information
REHABDATA
Resources in Computer Education
Resources in Vocational Education
Resource Organizations & Meetings
Texas Education Comp. Cooperative
Vocational Education Curriculum Materials

ELECTRICAL

Bulletin Board Systems
Business Computer
Cable and Satellite Express News
Cellular Radio News
Common Carrier Week
Communications Daily
Compendex
Computer Book Review
Computer Cookbook
Computer Market Observer
DBS News
Database Informer
Data Channels
Digital Bypass Report
EDF-DOC: Electricity and Energy
Electric Power Database
Electric Power Industry Abstracts
Electric Vehicle Progress
Electronic Mail News
EI Engineering Meetings
Fiber/Optics News
INSPEC
ISIS New Electronic Media Newswire
ISIS Private Videotex System Database
Ibsedex: Mechanical and Electrical
Interactive Video Technology
Interconnection
International Videotex Teletext News
Japan Computer Industry Scan
Japan High Tech Review
Japan Semiconductor Quarterly
Long-Distance Letter
Mobile Phone News
McGraw-Hill New Business Books/Software
NTT Topics
Outlook on IBM
Personal Computers Today
Robotics Information
Robotronics Age Newsletter
Satellite News
Satellite Television Newsletter
Seybold Report on Professional Computing
Software Imprint
Telecommunications Counselor
Telephone News
Tenant Communications
Unique: Your Independent UNIX/C Advisor
Videotex Now Newswire
Videotex Products
Viewtext

ENERGY

APIPAT
American Petroleum Institute
DOE Energy
Daily Petro Futures
EDF-DOC: Electricity and Energy
Electric Power Database
Electric Power Industry Abstracts
Energyline
Energy Bibliography & Index
Foster Natural Gas Report
GEOREF
POWER
Petroleum/Energy News
Solar Energy Intelligence Report
Utility Reporter-Fuels, Energy and Power

FINANCE

ABI/Inform
American Banker
Banking Regulator
Corporate EFT Report
Credit Union Regulator
EFT Report
Electronic Yellow Pages - Financial Service
FINIS: Financial Industry Information Service
FOREX Commentary
FOREX Watch
Financial Focus
Financial Services Week
Futures Focus Stock Index Plus
SOFIE: Financial Sources for Companies
* Disclosure II
* International Listing Service

FILM

Hollywood Hotline

GENERAL BUSINESS

Associations' Publications in Print
Business Hotel & Meeting Site Reviews
Business Traveler's Letter
California Union List of Periodicals
Career Placement Registry/Experienced Per.
* DIF: French Tax Law
Asia Cable
BLS Consumer Price Index
BLS Producer Price Index
Business Contents
Business Traveler's Letter
China Express
China Express Contracts
Commerce Business Daily
ESSOR: Directory of French Companies
Federal Research In Progress
Federal Research In Progress
Find/SVP Reports and Studies Index
German Business Scope
German Business Weekly
ICC British Company Financial Datasheets
Industry Data Sources
Media General Databank
Moody's Corporate News - International
Moody's Corporate News - U.S.
TRINET Company Database
TRINET Establishment Database
Trade and Industry Index
U.S. Contract Awards
World Businesss Intelligence Daily
* Corporation and Industry Research Reports Online Index

* ICC British Company Directory
* International Dun's Market Identifiers
* Key British Enterprises
* Moody's Corporate Profiles
* PTS Annual Reports Abstracts
* PTS Defense Markets and Technology
* PTS PROMT
* PTS F & S Indexes
* Standard & Poor's Corporate Descriptions
* Standard & Poor's News
* Standard & Poor's Register-Corporate
* Standard & Poor's Register-Biographical
* Thomas Register Online
* Trade and Industry ASAP
* D & B Dun's Market Identifiers
* D & B Million Dollar Directory

HISTORY

America: History and Life
FRCIS-H: Humanities
FRCIS-S: Social Sciences
Historical Abstracts

INDUSTRY

Electronic Yellow Pages - Construction Directory
Electronic Yellow Pages - Manufacturers
Electronic Yellow Pages - Retailers Directory
Electronic Yellow Pages - Services Directory
Electronic Yellow Pages - Wholesalers Directory
Engelsman's Construction Cost Indexes
IHS Vendor Information Database
Industry & International Standards
Manufactured Housing Newsletter
Military and Federal Specifications & Standards
NORIANE: Standards in Force
Standards and Specifications
Surplus Alert
TRANSIN: Technology Transfers
Voluntary Standards Information Network

INSURANCE

ABI/Inform
IMS Weekly Marketeer
Insurance Abstracts
Management Contents

INVESTMENT

ABI/Inform
APS Review
Asia Cable
Biotechnology Investment Opportunities
Boot Cove Economic Forecast
China Express Contracts
Daily Industrial Index Analyzer
Fastock II
Financial Focus
Ford Investment Review
Futures Focus
Low Priced Stock Digest
NASDAQ Newswire Daily
OTC Insight
Options Bulletin
Penny Stock Preview
Silicon Mountain Report
Stanger Report
TRENDVEST Ratings
Today's Market Line
Wall Street Monitor: Weekly Market Digest
Wall Street SOS
Wellington's Capital
Wellington Letter
Wellington Letter Tradeline
* Disclosure II
* INVESTEXT/Data Processing
* INVESTEXT/Real Estate & Construction
* INVESTEXT/Retailing
* INVESTEXT/Scientific & Technical Instruments
* INVESTEXT/Telecommunications
* INVESTEXT/Utilities
* INVESTEXT/Aerospace
* INVESTEXT/Automotive
* INVESTEXT/Broadcasting-Cable TV
* INVESTEXT/Chemicals
* INVESTEXT/Computers & Office Equipment
* INVESTEXT/Electrical & Electronics
* INVESTEXT/Financial
* INVESTEXT/Food Processing
* INVESTEXT/Food & Lodging
* INVESTEXT/Health Care
* INVESTEXT/Insurance
* INVESTEXT/Natural Resources
* INVESTEXT/Pharmaceuticals
* INVESTEXT/Printing & Publishing
* INVESTEXT/Building Materials

LAW

BLS Employment, Hours and Earnings
CIS: Occupational Safety and Health
Chemical Regulations and Guidelines System
Child Abuse and Neglect
Criminal Justice Periodical Index
Federal Index
Industrial Health & Hazards Update
LABORDOC
Lawyer's Micro Uses Group Newsletter
Legal Resource Index
National Criminal Justice Reference Service
PATDATA
Reports of Interest to Lawyers
* ECO: French Economic Law
* LABORLAW
* LEX: French Law
* PATLAW: Property
* SOC: French Labour Law
* SYD: French Family and Property Law

LIBRARY AND INFORMATION SCIENCE

Comprehensive Core Medical Library
Editors Only
Electronic Publishing Abstracts
Electronic Information Report
IIA Friday Memo
Information Science Abstracts
Kirkus Book Reviews
Library and Information Science Abstracts
Marquis' Pro-Files
Newsnet Action Letter
NA Hotline
Public Broadcasting Report
REDOSI: Information Systems
Seybold Report on Publishing Systems
Television Digest
Travelwriter Marketletter
ViewData/Videotex Reports
Wiley Book News
Worldwide Videotex Update

LITERATURE

Language and Language Behavior Abstracts
MLA Bibliography
McGraw-Hill New Business Books/Software
Wiley Book News

LIVING PERSON

American Men and Women of Science
Biography Master Index
Marquis' Who's Who

MANAGEMENT

Altman & Weil Report to Legal Management
BLS Employment, Hours and Earnings
CIS: Occupational Safety and Health
Catalyst Resources for Women
Electronic Yellow Pages - Professionals
Managmenet and Marketing Abstracts
Management Contents
Seybold Report on Office Systems

MARKETING

Service Dealer's Newsletter
Adtrack
Index to Frost & Sullivan Market Research Report
Management and Marketing Abstracts
Marketing Research Review
Marketwire
Michael Linden's Free Market Digest
Population Bibliography
PR Hi-Tech Alert/Video Monitor
PR Newswire
Sid Cato's Newsletter on Annual Reports
* Donnelley Demographics
* PTS International Forecasts
* PTS International Time Series
* PTS Mars
* PTS U.S. Timeseries

MATHEMATICS

Mathsci

MECHANICAL

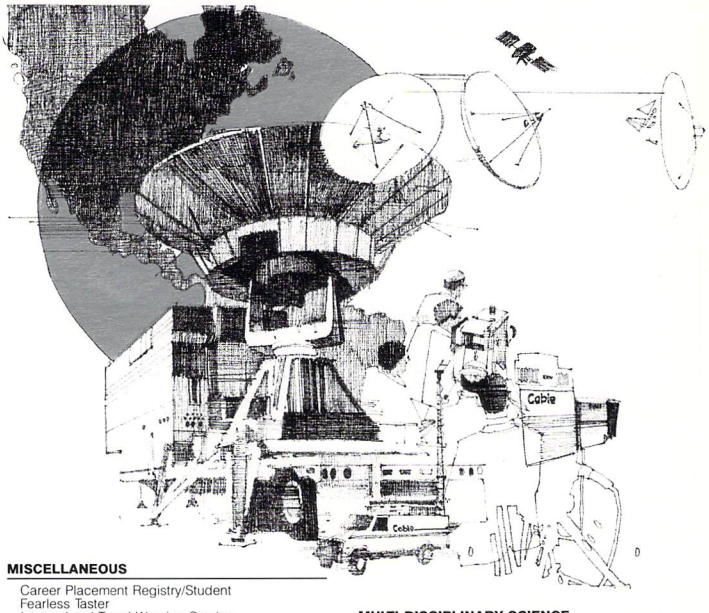
Compendex
EI Engineering Meetings
Fluidex
Ibsedex: Mechanical and Electrical
Information Service in Mechanical Engineering
Robotics Information
Society of Automotive Engineers Meetings

MEDICINE

Abledata
BIOSIS Previews
Biomedical Safety and Standards
Biomedical Technology Information Service
Biotechnology Investment Opportunities
Cancernet
Chemical Exposure
Clinical Lab Letter
Comprehensive Core Medical Library
DIACK Newsletter
Drug Information Full Text
Excerpta Medica
Family Resources
Health Audio-Visual Online Catalog
Health Cost Management Weekly
Health, Planning and Administration
International Pharmaceutical Abstracts
LABINFO: Research Activities & Services
Laboratory Hazards Bulletin
MMWR Plus
Medical Abstracts Newsletter
Medline
Micro MD Newsletter
Occupational Safety and Health
Pascal: CNRS-CDST
Pharmaceutical News Index
Pre-Med
Prescription Drug Update
REHABDATA
Radiology and Imaging
* Hazardline

METALS

Daily Metals Report
Iron and Steel Technology Insights
Metadex
Metals Information Designations & Specifications
Non-Ferrous Metals Abstracts
Weldasearch
World Aluminum Abstracts
Zinc, Lead and Cadmium Abstracts



MISCELLANEOUS

Career Placement Registry/Student
Fearless Taster
International Travel Warning Service
Mediawire
National College Databank
Online Chronicle
Photobulletin
Photoletter
Photomarket
U.S. Employment Opportunities-Advert/PR
U.S. Employment Opportunities-Bank/Financial
U.S. Employment Opportunities-Comp. Field
Washington Beverage Insight
Wiley Catalog Online

MULTI-DISCIPLINARY ARTS AND HUMANITIES

Academic American Encyclopedia
American Statistics Index
Arts & Humanities Search
Books In Print
Book Review Index
Dissertation Abstracts Online
Superindex

MULTI-DISCIPLINARY GENERAL

Academic American Encyclopedia
Books Information
Books In Print
Book Review Index
Encyclopedia of Associations
Foundation Directory
Foundation Grants Index
GPO Monthly Catalog
Grants
LC MARC
Magazine Index
Marquis' Who's Who
National Foundations
National Newspaper Index
Newspaper Index
Superindex
Ulrich's International Periodicals Directory
* Magazine ASAP
* Meeting: Future Meetings & Congresses
* Newsearch

MULTI-DISCIPLINARY SCIENCE

U.S. Employment Opportunities-Federal Government
Academic American Encyclopedia
American Statistics Index
Books In Print
Book Review Index
Conference Papers Index
Dissertation Abstracts Online
National Technical Information Service
SSIE Current Research
Superindex
* SCI SEARCH
* Soviet Science & Technology

MULTI-DISCIPLINARY SOCIAL SCIENCE

Academic American Encyclopedia
American Statistics Index
Books In Print
Book Review Index
Conference Papers Index
Dissertation Abstracts Online
Superindex
* SOCIAL SCISEARCH

NATIONAL NEWSPAPERS

Christian Science Monitor
Christian Science Monitor Index
Financial Times
Los Angeles Times
New York Times
Wall Street Journal
Washington Post
Washington Post Index

NEWSWIRES

PR Newswire
UPI News
Asahi News Service
Associated Press (European Edition)
Associated Press (U.S. Edition)
BBC External Services News
BBC Summary of World Broadcasts
NPD Mexico Daily Newsbriefs
TASS
UPI News
World Reporter
Gold Sheet

NURSING AND ALLIED HEALTH

Abledata
DIACK Newsletter
Health, Planning and Administration
Health Audio-Visual Online Catalog
Health Cost Management Weekly
MMWR Plus
Micro MD Newsletter
Nursing and Allied Health
Prescription Drug Update

PAPER

PIRA Abstracts
Paperchem

PATENTS

APIPAT
Chemical Abstracts
Claims/Class
Computerpat
Engineering Microsoftware Review
Federal Research Report
Innovator's Digest
Invention Management
PATDATA
Space Research & Development Alert
Trademarkscan
U.S. Classification
Claims/Compound Registry
* Claims/Reassignment & Reexamination
* Claims/U.S. Patent Abstracts
* Claims/U.S. Patent Abstracts Weekly
* INPADOC: Patents
* INPANEW: Patents
* INPI1: French Patents
* INPI2: European Patents
* INPI3: Patent Families
* INPI4: Intl Patent Classification
* U.S. Patent Office
* World Patents Index

PETROLEUM, GAS, ETC.

P/E News

PHARMACY PRACTICE

Drug Information and Alcohol Use and Abuse
Drug Information Full Text
Excerpta Medica
International Pharmaceutical Abstracts
Medline
Pharmaceutical News Index

PHYSICS

Meteorological & Geoastrophisical Abstracts
Searchable Physics Information Notices

PLASTIC

RAPRA Abstracts

PSYCHOLOGY

Child Abuse and Neglect
Family Resources
Mental Measurements Yearbook
National Institute of Mental Health
PSYCHALERT
PSYCHINFO
REHABDATA

PUBLIC AFFAIRS, POLITICS AND GOVERNMENT

APS Diplomat
Access Reports/Freedom of Information
Africa News
Congressional Activities
Congressional Information Service
Congressional Record Abstracts
Crecord
Exporter
FTC: Watch
FTC FOIA Log
Federal Index
Federal Register Abstracts
Frost & Sullivan's Political Risk Letter
GPO Publications Reference File
High Tech International
Information Report
International Businessman News Report
Japan Weekly Monitor
LABORDOC
LOGOS: French Political and Social Information
PACS and Lobbies
PROCESS: French Legislative Process
Public Affairs Information Service
U.S. Census Report
U.S. Political Science Documents
World Affairs Report
* SOC: French Labour Law

REAL ESTATE

Real Estate Buyers Directory
Real Estate Investing Letter
Real Estate & Venture Funding Directory

REGIONAL

American Men and Women of Science
Biography Master Index
Marquis' Who's Who
Abstracts of Tropical Agriculture
Africa News
Antarctic Bibliography
Biblat: Latin America
CIM: Cements and Hydraulic Bindings
California Union List of Periodicals
Canadian Business and Current Affairs
EDF-DOC: Electricity and Energy
ESSOR: Directory of French Companies
Ecomine: Mining Economics
Ecothek: Local Environment
FAIREC: Tropical and Citrus Fruits
Fluidex
GRAPPE: French Firms-Markets & Products
HELIOS: French Government Libraries
High Tech International
ICONOS: French Photographic Collection
ICC British Company Financial Datasheets
Japan High Tech Review
Japan Semiconductor Quarterly
Japan Weekly Monitor
LOGOS: French Political and Social Information
Mid-East Business Digest
Mid-East File
Middle East: Abstracts and Index
NORIANE: Standards in Force
Ontario Educational Resources Information
PROCESS: French Legislative Process
Pacific Islands ECOSYSTEMS
SOFIE: Textile
TRANSIN: Technology Transfers
URBAMET: Town and Regional Planning
* BANQUE: French Banking Law
* ECO: French Economic Law
* ICC British Company Directory
* Key British Enterprises
* LEX: French Law
* PATLAW: Property
* SOC: French Labour Law
* SYD: French Family and Property Law
* Soviet Science & Technology

REGIONAL NEWSPAPERS

Akron Beacon - Journal
Allentown Call - Chronicle
Anchorage Daily News
Arkansas Gazette
Baton Rouge Advocate & Times
Boston Globe
Charlotte Observer
Chicago Sun Times
Chicago Tribune
Christian Science Monitor Index
Columbus Dispatch
Daily Texan
Dallas Morning News
Denver Post
Detroit Free Press
Financial Times
Fort Lauderdale News & Sun-Sentinel
Gilroy Dispatch
Guardian
Houston Chronicle
Hseline: Health and Safety
Lexington Herald-Leader
Los Angeles Daily News
Los Angeles Times
Miami Herald
New Orleans Times Picayune
New York Times
Orlando Sentinel
Philadelphia Daily News
Philadelphia Inquirer
Richmond Leader & Times Dispatch
Sacramento Bee
San Francisco Chronicle
San Jose Mercury News
Seattle Times
Washington Post
Washington Post Index
Wichita Eagle-Beacon

RELIGION

Churchnews International
RFC News Service
RNS Daily News Report
Religion Index
United Methodist Information

SOCIOLOGY

Catalyst Resources for Women
Child Abuse and Neglect
Family Resources
Mid-East Business Digest
Sociological Abstracts
URBAMET: Town and Regional Planning

SPORTS

SPORT
Sports Industry News

STOCK MARKET

APS Review
Defotel: Stock Exchange Information
Ford Investment Review
Futures Focus
Low Priced Stock Digest
Penny Stock Preview
Silicon Mountain Report

SURFACE COATINGS

World Surface Coatings Abstracts

TAXATION

CCH Tax Day: Federal
CCH Tax Day: State
Charitable Giving
IRS TAXINFO
Small Business Tax Review
Tax Directory
Tax Notes International
Tax Notes Today
* DIF: French Tax Law

TEXTILES

TITUS: Textile
Textile Technology Digest
World Textiles Abstracts

THEATRE

Language and Language Behavior Abstracts
MLA Bibliography

TRADEMARKS

American Bulletin of Technology Transfer
Copyright Management
Engineering Microsoftware Review
Federal Research Report
Innovator's Digest
Invention Management
Space Research & Development Alert
Trademarkscan

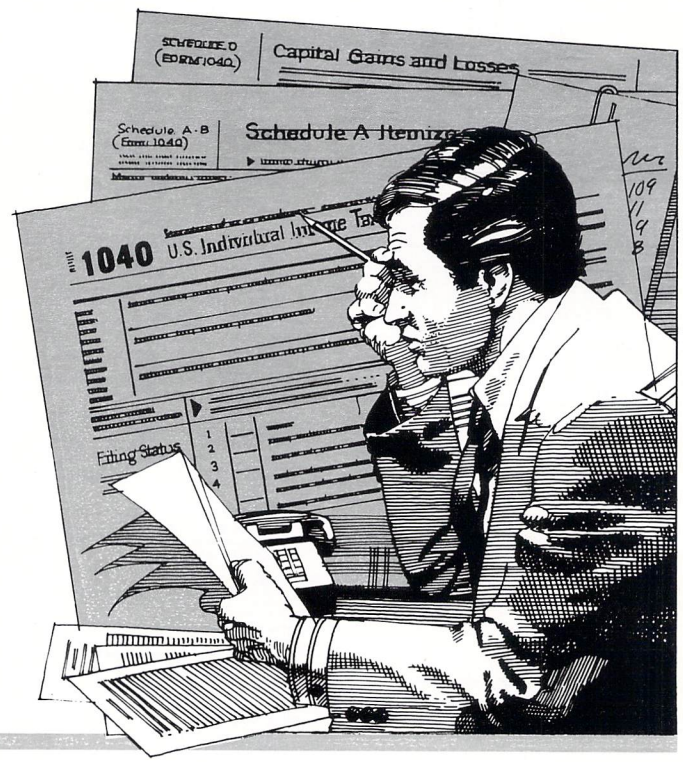
TRANSPORTATION

Public Transit Report
Resitrup Report: Rail and Intermodal
Runzheimer On Automotive Alternatives
Transportation Research Information Service
U.S. Rail News

TV, RADIO

Language and Language Behavior Abstracts
MLA Bibliography
Video Week

* Surcharged database



CompuServe®

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PaperChase Helps User Converse with Medical Professionals

As a representative of one of the world's largest pharmaceutical companies, I routinely come in contact with medical professionals at medical schools, Veteran's Administration hospitals and state institutions. I need to converse intelligently with professionals from different backgrounds (research, academia or private practice) and specialties ranging from infectious diseases to endocrinology.

My main tool is PaperChase, available through the CompuServe Information Service. In minutes, I can search the National Library of Medicine for biomedical subjects of interest to the medical professionals with whom I am meeting. This information helps me to interact intelligently with them about topics in their areas of expertise.

For example, suppose I have helped to plan a medical symposium with four guest lecturers. All are arriving the night before and I am to be their host for dinner. Beforehand, I can scan each person's curriculum vitae and determine each one's professional interests and area of expertise. Then, through PaperChase, I can bring myself up to date on those subjects. Within minutes, I can have many abstracts of clinical papers to peruse before dinner.

From my experience, I can say that this practice not only ensures that there will be a stimulating conversation, but also demonstrates that I am interested in my guests and have a certain level of knowledge about their professions.

Larry F. Levenson
Kansas City, Mo.

Answers from Customer Service

Q: I want to get the latest news on all sporting events. Does CompuServe have any sports news services?

A: CompuServe has two sports news services available. You can get updated sports information by using the AP Sports Wire or Computer Sports World. Type GO APV-5 or GO CSW at any prompt on the CompuServe Information Service.

Q: Is it possible to read the Soap Opera Summary for a particular "soap"?

A: No, the Hollywood Hotline allows you only to specify the date of the show not the specific program.

Q: Does CompuServe have a service that I can use to create a "clipping folder" to scan the Associated Press wires for specific topics? If so, how do I access it?

A: The Executive News Service is just what you need. You can create a "clipping folder" that will scan designated AP wires for stories containing words or phrases of your choice. The folder will hold these stories for you to read at your leisure. You can customize your folder to scan any one of the 50 State AP Wires and the National Wire, or all of them if you like. The program is designed to work for you.

To access the Executive News Service, you must have a CompuServe Executive Option account. If you want to use the resources of the largest news-gathering organization in the country, type GO BILLING from any prompt and purchase an Executive Option subscription. Then type GO ENS to enter the Executive News Service. Help is available at almost every prompt in the Executive News Service by typing H, ?, or HELP.

Q: How can I stay informed of enhancements, changes and announcements on CompuServe?

A: CompuServe keeps you informed online through the What's New menu that appears when you first log on. What's New announces changes, additions and enhancements to the CompuServe Information Service every Thursday. Even if you miss a What's New menu, you still have access to the news by typing GO NEW at any prompt.

For daily-updated news about CompuServe services and the computer industry, refer to *Online Today Electronic Edition* (GO OLT). CompuServe Community News, Forum Conference Schedules and previous weeks of What's New are accessible by typing GO NEW or GO OLT.

Q: I have subscribed to the Executive Option and want to know how to delete an article in a clipping folder in the Executive News Service. I also would like to know how to send an article from my folder to another user in my company.

A: When you have displayed the menu of stories in your clipping folder, you may enter DELETE followed by the menu number(s) of the stories you want to delete. For example, DELETE 6 or DELETE 1-4,9.

To send a story via EasyPlex, simply enter the command SEND followed by the menu number of the story. For example, SEND 4. You will be prompted for the recipient's User ID number. Remember that help is available at every prompt by typing H, HELP or "?".

Gift of Time

Online Today offers subscribers the chance to write a 200-word essay on how they use CompuServe's Information Service.

Your essay should be typed double-spaced. Send it to *Online Today*, CompuServe Incorporated, 5000 Arlington Centre Blvd., P.O. Box 20212, Columbus, OH 43220, or by an Email message to 70003,1661. Please include your full name, address and User ID number.

Should we use your column, you will receive 10 hours of standard service connect time (a $60 value) and a byline.

Could *Your* Business be Affected By Happenings in the Computer World Today?

Find out in the *Electronic Edition* of *Online Today*. GO OLT from any prompt in CompuServe to get daily updated computer news.

ONLINE TODAY
ELECTRONIC EDITION

The Search Is Over

IQuest Makes Information Accessible

A new state-of-the-art online research tool called IQuest (pronounced as "I quest") has taken information out of the exclusive realm of professional researchers and put it on the screens of business professionals, students and, yes, even children. According to CompuServe Product Manager Kevin Knott, online information retrieval — previously an expensive and sometimes frustrating experience for the uninitiated — is now a speedy, economical and truly accessible method for gathering data.

"IQuest provides users with a single point of access to more than 700 databases," Knott says. "It is the most comprehensive source of online information available anywhere, and it may be the simplest to use.

"IQuest bypasses all the steps and codes peculiar to the various databases. Instead of having to learn a lot of different formats, on-screen prompts lead users through just a few easy steps — steps that are the same regardless of which database is searched," he says.

This quick and easy access is possible because IQuest automatically interprets your request for information and conducts the search on your behalf. Accessing databases on services such as Dialog, BRS, NewsNet, Vu/text and ADP, IQuest executes your search, captures any relevant titles — known as "hits" — and returns the results to you. Because IQuest is an online service, it completes the search much faster than even the most conscientious human librarian using regular indexes.

Databases available through IQuest range from the scholarly — for example, the National Information Center for Educational Media — to the popular press, covered in Magazine Index, to the businesslike — with dozens of investment and marketing publications — to the obscure, such as Mobile Phone News. IQuest is filled with fully indexed historical data reaching back 25 years for some publications. And because it is updated electronically each day, it also catalogs the most recent articles in print, from last week's news magazines to yesterday's newspapers. A sample of the source materials available in these databases includes magazines, newspapers, indexes, conference proceedings, directories, books, newsletters, government documents, reports and studies, dissertations, encyclopedias, patent records and reference guides.

IQuest access is provided as a joint effort between CompuServe and Telebase Systems Inc., a Pennsylvania-based communications firm whose president, Dick Kollin, holds degrees in engineering and library science. Kollin is also the developer of Magazine Index, the popular magazine bibliographic database that lists articles from more than 400 publications dating from 1958. Magazine Index was Kollin's first attempt to make usable data readily available, and he says IQuest is also based on that philosophy.

"My aim was to develop a system that regular folks who need the information the experts all use could access easily and inexpensively," says Kollin. "For the past 15 years, online systems and the networks on which they are offered have grown up helter-skelter. As a result, there are more codes, passwords and protocols than you can shake a stick at."

IQuest bypasses these confusing procedures to make accessing data — quite literally — child's play, says Kollin, whose favorite ease-of-access example involves his son, then 10 years old. "I had a demonstration unit in the living room that I gave him orders not to touch — and, of course, as soon as I went to bed, he did," Kollin recalls.

"The next morning as I was making breakfast, he asked 'Who's Arthur Conan Doyle? He's getting in the way of my search on Conan the Barbarian!' "

Whether it is background on barbarians or information on a business topic you're after, the same quick, easy access is available. IQuest gives you two ways to get the information you're looking for. IQuest-I guides you through a series of menus to help define your topic of interest. Once you have specified a topic, IQuest-I selects a database for you and executes your search. If you already know the database you want, IQuest-II allows you to bypass the menus and simply enter the database name.

IQuest's 700 databases contain either bibliographic or full-text documents. Bibliographic databases provide complete reference information for an article including title, author, publication and date. Often this is enough for research purposes, but many bibliographic databases also provide a summary of an article, called an abstract, that may eliminate the need to see the entire contents of an article. Full-text databases, on the other hand, do not offer complete bibliographic information. Instead, the full text of an article is available for immediate review.

The cost to conduct a search on any IQuest database is $7. If the database is bibliographic, you are shown up to 10 titles (with complete bibliographic information) that match your search terms. If your search has generated more than 10 hits, you are shown the most recent 10. You have the option to display the next most recent 10 hits for a $7 charge. You may also display an abstract for any of the titles for a $2 charge.

If the database you've searched is full text, you are shown up to 15 titles. In addition, you are entitled to see the full text of one of the titles as part of your $7 search fee (the full text for other titles is available for $7 per article). If your search has turned up more than 15 titles, you may view the next most recent 15 titles for a $7 charge.

The basic search charge applies to all IQuest databases, but a small number of databases carry an additional $4 to $8 surcharge. These databases are clearly marked online to alert users to the surcharge. "Only a few databases are so expensive that we needed to assess an additional charge," explains Knott. "Rather than spread the cost across all the databases, we decided to restrict those surcharges only to the databases they apply to. This way, we've been able to keep the cost down for the majority of people who will be using IQuest."

Another way IQuest keeps searching costs down is the "no hit" allowance. There is no charge for the first search in which you find no articles. Subsequent "no hit" searches cost only $1. The $7 search fee is assessed only when you find articles. A review of IQuest charges:

- No charge for first "no hit" search
- $1 for second and subsequent "no hit" searches
- $7 per search
- $2 for abstract
- $12 for photocopy of article via U.S. mail
- $28 for photocopy of article via overnight delivery service

If you get stymied at any point in your IQuest search, a kindly — and very human — researcher is available to help you. Simply type SOS and free online, real-time help is on its way. "Our SOS people are professionals who can give you solid, valuable answers to your questions," comments Kollin.

According to Knott, IQuest is a valuable tool for individuals and businesses. Growing companies lacking the information retrieval departments common at big corporations can stay atop develop-

ments affecting business. "IQuest can serve as a strategic marketing tool for these firms," he points out. "Nowadays, maintaining the competitive edge lies not just in knowing what information you need, but in knowing where to get it at a moment's notice.

"Larger companies also can benefit from IQuest," he adds. "Often an executive will use a particular 'pet' database because he or she has mastered the protocol and just doesn't have the time to learn the procedures for another one. Since IQuest consolidates diverse information from a number of databases, it provides executives much wider access — without their having to learn a lot of other steps for accessing that information. And instead of half a dozen executives with a dozen different database accounts, with IQuest there's only one information service account."

Whether you use IQuest for business or for your own edification, Knott and Kollin are certain you'll find the procedure painless — and perhaps even pleasurable. Knott sums up IQuest's advantages eloquently: "IQuest transforms your computer screen into a window on the world of information."

Carole Houze Gerber is a contributing editor of Online Today. *She is currently working on a children's book about computer ethics for Franklin Watts Publishers. Her CompuServe User ID number is 70007,1215.*

IQuest's Advantages

- No training required. Six simple steps take you from log on to log off, regardless of the database accessed.
- In most cases, the fee is the same regardless of which database is searched. Charges are labeled clearly.
- No charge if the first search is unsuccessful. Only a $1 charge if subsequent searches find nothing. (It's recommended that you use the SOS option if a second search fails.)
- Hardcopy reprints of complete articles can be ordered for overnight or regular mail delivery.
- Most bibliographic references are accompanied by abstracts.
- An experienced human researcher is available immediately to help with your search. An SOS request brings an online interactive research assistant for free online help in redefining your search criteria.

NEW PRODUCTS

ETC Adds Online Directory

The Educational Travel Connection has added an online directory of travel organizations subscribing to CompuServe. Called the "Hotline to Travel Organizations," the directory lists each organization's name, the contact person's name and User ID number and a brief description of the organization. CompuServe users who send EasyPlex messages to the organizations to request information will receive travel catalogs, handbooks and posters. GO ETC-90

Software Program Added

The program THOT-PLAN'r is now available in CompuServe's software exchange. THOT-PLAN'r is a brainstorming and outlining program that helps in capturing ideas into a numbered list, arranging the ideas in an outline structure and viewing the list on the computer screen or printer. THOT-PLAN'r runs on IBM and IBM-compatible computers and sells for $30. GO STX

New Weather Map Available

The VIDTEX Weather Maps area has a new Depiction Map that shows areas where weather conditions are good enough for visual flight and where they are bad enough to require flying by instruments. Although this map is intended primarily for use by pilots, it is designed to be understood by anyone. GO MAPS

CompuServe VIDTEX software capable of displaying high-resolution graphics or one of the public domain programs in the Aviation Forum Data Library 5 is required for viewing the map. GO AVSIG

Autodesk Opens Software Forum

Autodesk, the manufacturer of AutoCAD, the world's most widely-used Computer-Aided Design software program, now offers a software forum on CompuServe. AutoCAD users, dealers, peripheral manufacturers, applications developers and Autodesk personnel can meet in the forum to exchange information, public domain programs and applications.

Forum members can receive answers to questions about Autodesk products, learn about authorized training centers and find out which trade shows Autodesk representatives will be attending. GO ADESK

Forth Forum Open to All

The Forth Forum, sponsored by Creative Solutions, is now open to all CompuServe subscribers. Forum topics include general Forth discussions. Separate sections are available for Amiga Multi-Forth, Atari ST Multi-Forth and MacFORTH Levels 1 and 2. GO FORTH

DR. JOB Database Expands

The DR. JOB Column now covers more career-related issues in greater detail. Sandra Pesmen, a *Crain's Chicago Business* feature editor who compiles the DR. JOB column, has assigned special topics for coverage by experts. New article topics include inventions and patents, public accounting, executive search firms, careers in electronics and how to become a consultant. New reports on job-related questions appear biweekly under "Career Tips," choice 3 on the DR. JOB main menu. GO DRJ

CBers to Convene for Wedding, Party

While June is the traditional month for weddings, for CompuServe CB Simulator users, it is something more. The annual CB Convention, held June 20-22 in Columbus, gives CBers the chance to meet face-to-face those they have met online. This year's gathering features the wedding of a man and woman who met through CB. All convention visitors are invited to attend the ceremony.

In conjunction with the convention/wedding plans, a new service, "The Wedding Party," is available on CompuServe. It features travel planning for those attending the convention and a special section dealing with the CB couple, but it is not limited to convention plans. Those planning a wedding will find options to help plan the wedding and cope with the change in lifestyle. Recently married couples also may benefit from the financial planning assistance and family-living counseling offered.

One option within The Wedding Party is the Wedding Planner/Workbook. This online planner helps track the steps needed to organize the ceremony and attendant gatherings. Information from the workbook can be downloaded and printed out as a guide.

Online forum conferences are planned to deal with common problems newlyweds face. Human Sexuality (GO HSX), Religion (GO RELIGION), Investors (MMM-18), Political Forum (GO POLITICS) and the National Issues (GO ISSUESFORUM) forums are sponsoring special conferences.

For those who want to "see" the CB couple in advance, a digitized photo will be available online. A bridal registry contains suggested gift items available through The Electronic Mall for those who want to shop online for a present. A schedule of convention events also is available.

Special travel packages are planned for the convention. The land package includes two nights at the Hyatt Regency in Columbus, a luncheon on Saturday, transportation to and from the wedding at CompuServe headquarters, a champagne reception, dinner and dancing Saturday evening. A digitized photos session, laser light show and tour of CompuServe's computer facility also are included.

There are group airfares available from New York City, Chicago and Los Angeles, as well as discounted airfares from other cities.

Once again, door prizes will be awarded. Last year's prizes included a Hero Jr. Robot, courtesy of Heath/Zenith, a C128 computer, modem and disk drive from Commodore and a $600 gift of time credit from CompuServe.

Watch What's New and Cupcake's CB Society Column for announcements about the party. Also, watch for the publication, Let's Talk!, a CompuServe CB Simulator booklet written by LooLoo. To learn more about becoming a part of the electronic neighborhood of CB, type GO CB at any prompt on the CompuServe Information Service.

To access The Wedding Party database, type GO WEDDING at any prompt on the CompuServe Information Service.

Speak Out

Directory Helps Users Contact Public Officials

Are you unhappy with the defense budget? Dissatisfied with your state's income tax? CompuServe users now can express their feelings directly to the people who make decisions about these and other issues.

The Directory of Public Officials contains the names and official mailing addresses of more than 1,000 key federal and state personnel. Listings are updated regularly and subscribers can let the information provider know of any changes or problems via the "Message" selection on the main menu.

The Directory is divided into sections for federal and state officials. The directory of federal officials includes listings of personnel in the White House, all Cabinet-level departments and executive agencies, such as the Federal Aviation Agency and the Central Intelligence Agency. Members of the U.S. Senate and House of Representatives are listed individually and by committee assignments, along with justices of the U.S. Supreme Court.

The directory of state officials includes governors and leading state capital officials for all 50 states and key executives for the District of Columbia, Puerto Rico and other U.S. territories.

"Each listing is detailed yet cuts through the confusion involved in locating the appropriate individual," explains CompuServe Product Manager Dan Meeks. For example, the U.S. Senate directory lists senators for specific states, senate committees and senate leadership. Users wanting to locate a senator by state can use the menu of states. The database provides full name, office address, party affiliation, date of election and committees on which the senator serves.

A senate committee listing yields its official title, chairperson, and majority and minority members including each one's party and state affiliation. This database contains all standing Senate committees and covers a wide range of subjects from nutrition to forestry. The 14 Cabinet departments and 30 selected agencies are similarly organized. The department or agency name, address and phone number are listed, followed by relevant personnel.

So the next time an event or policy makes you angry or even if it pleases you, type GO DPO at any prompt on the CompuServe Information Service and find out whom to contact. The Directory of Public Officials does not have a surcharge. "A letter is much more effective than a phone call or discussion with friends," notes Meeks. "If enough people let a policymaker know their feelings, they will likely see results."

— Sandra Gurvis

What's Going On???

If you want to know what's going on around CompuServe, check into the *Electronic Edition* of *Online Today*. Here you'll find constantly revised news for and about the CompuServe community. GO OLT from any prompt and choose "CompuServe Update" from the main menu.

WHOOPS
Hallmark
Color
MAIL
COME ALONG, BINKY! THAT'S NOT FOR YOU! THAT'S HALLMARK'S REVOLUTIONARY NEW SOFTWARE—COLOR MAIL* AN ELECTRONIC GREETING FACTORY THAT ALLOWS CONSENTING ADULTS TO COMMUNICATE IN COLOR, TIME, SOUND AND ANIMATED GRAPHICS!
?!
GRRRRRRR!

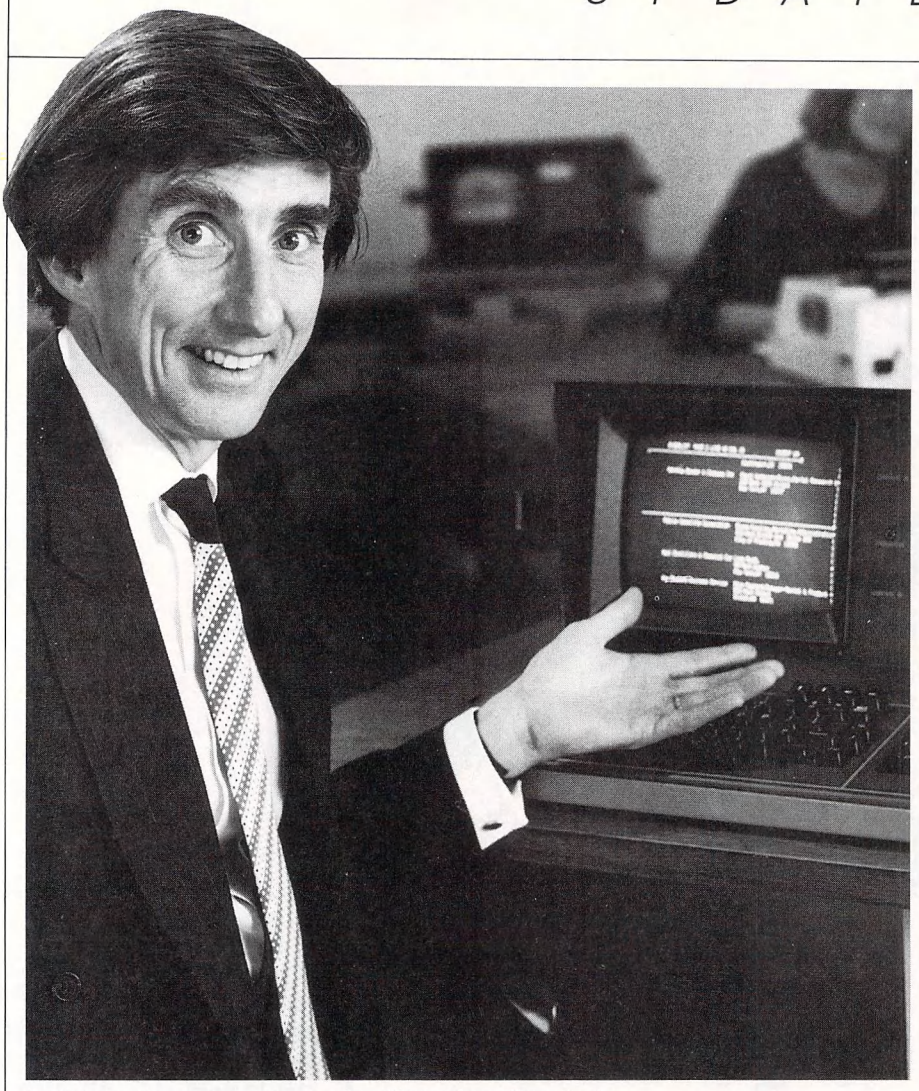
Hallmark Color Mail.™ Your chance to send all your friends and acquaintances on CompuServe the kinds of outrageously embellished greetings they deserve...and would've sent you first if they could've! Greetings you can assemble and send with sounds, animated graphics, full color, performing words — for any occasion you like.

GO EBB or circle 40 on the Reader Service Form.

So get serious about having big fun when you communicate — and GO COLORMAIL right now. We've got a section on CompuServe that TELLS ALL! And remember, a picture is worth a thousand words but with Color Mail you also get flying bananas and the William Tell Overture.

* Available for Commodore 64,128 © and Apple II © Series of Computers.

Color Mail © 1986 Hallmark Cards, Inc. All rights reserved.



An information entrepreneur takes his trade online: *Lesko*

Find Facts Fast with Information USA

Matthew Lesko, a 42-year-old, fast-talking Washington, D.C. resident, has compiled thousands of names, addresses and phone numbers into what he calls "Information USA," an online guide to the world's largest source of information — the United States government.

"There is no such thing as inside information," according to Lesko. "The problem isn't getting the information, but rather being able to sort through the massive amount available."

Lesko's zany personality and unique approach to information-finding have made him a favorite guest of David Letterman, Phil Donahue, Larry King, "Good Morning America" and "The Today Show."

The online Information USA — Lesko has written a book by the same name — is now available on the CompuServe Information Service by typing GO IUS. The Information USA main menu includes such items as Best of the Freebies, Gifts from Uncle Sam, Telephone Hotline, Help from Your Congressman and Resources Close to Home.

For those esoteric and unusual questions, users can consult Lesko directly through the Electronic Answer Man. Lesko and his staff at Information USA will provide the sources needed to locate the answers.

In celebration of National Information Month, all CompuServe subscribers can access the Electronic Answer Man (GO EAM) for free during the month of May. In addition, Lesko's Washington, D.C., headquarters research personnel will answer questions over the phone at 1-800-USA-0030.

"There is no such thing as inside information," according to Lesco. "The problem isn't getting the information, but rather being able to sort through the massive amount available."

Here is a sample of the questions asked of the Electronic Answer Man:

- Is there government money available to help me buy a condo or co-op? (Yes! How much do you need?)
- Can I travel overseas at government expense? (Sure can! Get your passport ready!)
- I have to write a term paper on aid to Central America. Can the government help me? (You bet. How does the expert assistance of more than 300 Ph.D.s sound?)

Lesko's enthusiasm is contagious. "All of this expertise is there for the asking. The information our government provides is truly the greatest resource of this country. It is different from other resources in that it is not limited, as coal or oil are, and it is available to everyone — rich or poor. The only thing that can stop us from doing something is not having the right information. Here it is."

Lesko officially opened his company, then called Washington Researchers, more than 10 years ago from a corner of his bedroom. Within four years he had 40 employees.

In 1984, he launched Information USA Inc. to help decision-makers identify little-known databases and other sources of information in both the public and private sectors. Lesko has written a monthly financial column for *Good Housekeeping*, is a contributing editor of *Success* magazine, has a regular broadcast on National Public Radio's "Morning Edition" and has published 30 business books and nearly 10 trade books. Two of his trade books, including *Information USA*'s first edition, made the *New York Times* bestseller list, and *Information USA* was awarded "Best Reference Book of the Year" by the American Library Association.

A Vietnam veteran who suffered several business failures before the success of Information USA, Lesko calls himself "just a poor boy trying to make a buck" and chuckles at how things have turned out. "I managed to graduate from college without ever writing a term paper (I hated them!), and now I'm writing term papers for a living. Many Fortune 500 companies make important decisions based on the information I give them."

In addition to CompuServe's abbreviated electronic version, the complete version of *Information USA* is available in book form from Penguin Books (second edition, 1986) for $22.95.

— Cathryn Conroy

Track Down Criminals with Your Computer

CompuServe users now can do at home what they may not have time to do in the post office — read the FBI's "10 Most Wanted" list and view the photographs.

"We've developed a graphics capability whereby images from a video camera can be displayed on the monitor by Run-Length Encoded graphics," says John Losco, computer graphics designer at CompuServe and product manager for the "10 Most Wanted." Subscribers also can read biographical information on each fugitive and descriptions of their crimes.

Users can access the database by typing GO GPO or GO FBI at any prompt on the CompuServe Information Service. After a brief history of the "10 Most Wanted Fugitives," the list of names appears on the screen. When selecting a name, you can choose "Story and Description" or "Portrait of a Fugitive" from the menu.

The first option is a rundown of the wanted person's crime, personal habits and history, the place he or she was last seen and any other pertinent information. The portrait option produces a clear black, white and gray image of the fugitive. A list of vital statistics and other distinguishing characteristics, such as a scar, limp or unusual medical condition, is included with each picture.

"CompuServe is providing an important public service," notes Doug, an FBI agent-liaison whose last name is not mentioned here for security purposes. "Many subscribers are professionals such as doctors, lawyers and dentists. Like everyone else, criminals use their services from time to time." He adds, "Fugitives have special interests, so CompuServe subscribers can be on the look-out if they happen to share the same hobbies or sports."

Increased communication may have been responsible for the capture of five on the list this year, according to Steve, an FBI special agent. "It's amazing how many strange little coincidences enter into an apprehension. That's why the more people we 'plug into the system,' the better our chances of catching criminals." He cautions that persons should not try to apprehend suspects themselves, but instead should contact the nearest FBI or law enforcement agency office.

Losco hopes to expand the database to include more FBI history and criminal information. "The potential is unlimited," he says. "Catching that first fugitive through this database is only a matter of time."

— Sandra Gurvis

How to Display FBI Photos

Users who have Apple IIc VIDTEX, Color Computer (COCO) VIDTEX or The Professional Connection (Version 2.0 or above) for the IBM PC can automatically receive the high-resolution graphics images.

Subscribers who cannot access the graphics directly may be able to use a program to download the images and view them off-line. To find out if a particular computer can receive the images and which program should be used, subscribers should refer to Help files in CompuServe's CB Forum, Data Library 2. To access the forum, type GO CBIG at any prompt on the CompuServe Information Service.

Changing Your Password

The CompuServe Information Service urges its customers to change their password(s) at least once a month.

The password should be a minimum of eight characters composed of two unrelated words separated by a symbol, for example: HOUSE*MAGNET.

To find out how to change your password, type GO PASSWORD.

NOW CITIBANK DIRECT ACCESS MAKES IT THIS EASY TO MANAGE YOUR IRA.

The only PC Banking Service to give you up-to-the-minute control of your IRA and brokerage investments.

With Direct Access, managing your Citibank IRA and Citicorp Brokerage investments is as easy as the touch of a button on your PC. You'll know instantly how much money you have invested and where it is. With Direct Access, you can invest your IRAs in CDs, Money Market Accounts, even earn potentially higher returns with a Citibank Portfolio IRA: stock and bond funds managed by Citicorp financial specialists.

Direct Access gives you on-line control over your Citibank IRA and Citicorp Brokerage investments. Start funding your 1986 Citibank IRA through Direct Access now, and by moving your other IRA accounts to Citibank you'll have everything you need to know at your fingertips.

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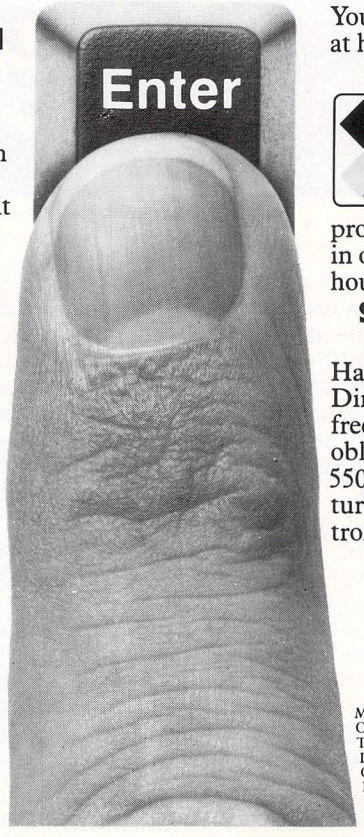

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HX-12E

An RGB Monitor for Enhanced Color Graphics

Princeton Graphic Systems
601 Ewing St., Bldg. A
Princeton, NJ 08540
609/683-1660

Computers: IBM PC, PC-XT or compatibles; Apple IIe.
Operating System: Not applicable.
Features: Non-glare 12-inch screen; RGB Input; standard with capability for using IBM Color Graphics Adapter or Enhanced Graphics Adapter; displays 80 characters by 25 rows; provides resolutions of 640 by 350, 640 by 200 or 770 by 350 dots.
Options: RGB-80 card allows monitor to be used by an Apple IIe.
Model Tested: HX-12E in CGA and EGA modes on a 640K IBM PC.
Base Price: $785

Reviewed by James Moran

The HX-12E is a high-resolution RGB monitor produced by a reliable manufacturer of computer peripherals. The monitor is similar to Princeton Graphic's earlier HX-12 monitor but includes compatibility with Enhanced Graphics Adapter. The monitor adapts automatically to whichever color adapter is used.

The monitor came standard with the cabling needed to connect to an IBM PC. The cable was the usual six-foot length that all monitor manufacturers seem to have adopted. That standard helps keep secondary cable suppliers in business since many users need extensions.

The HX-12E has virtually the same footprint and silhouette as an IBM monitor. Unless they get close enough, most people won't notice the difference. That similarity is what makes Princeton Graphics' monitors popular. The monitor is completely compatible with IBM equipment except for the price. Mail order and discount merchants are particularly helpful in this area, and my unit was available at a $285 discount from the published retail price.

Once connected, The HX-12E ran through test procedures without a glitch. I started it in 16-color mode with a Color Graphics Adapter, and it performed flawlessly when reconnected to a 64-color Extended Graphics adapter. In both modes, colors were clear and brilliant. No flicker or blurring was evident, and the monitor's alignment was as close to perfect as could be expected. For those who use only one monitor, the HX-12E performs equally well for text or graphics.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

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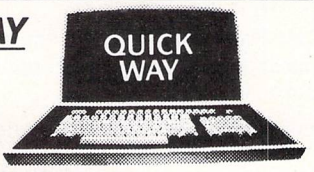

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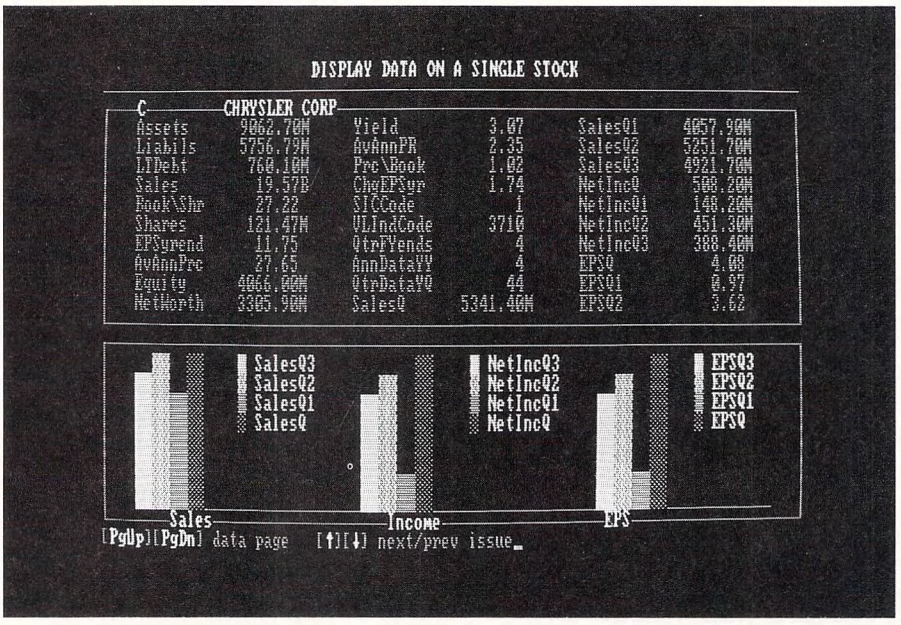
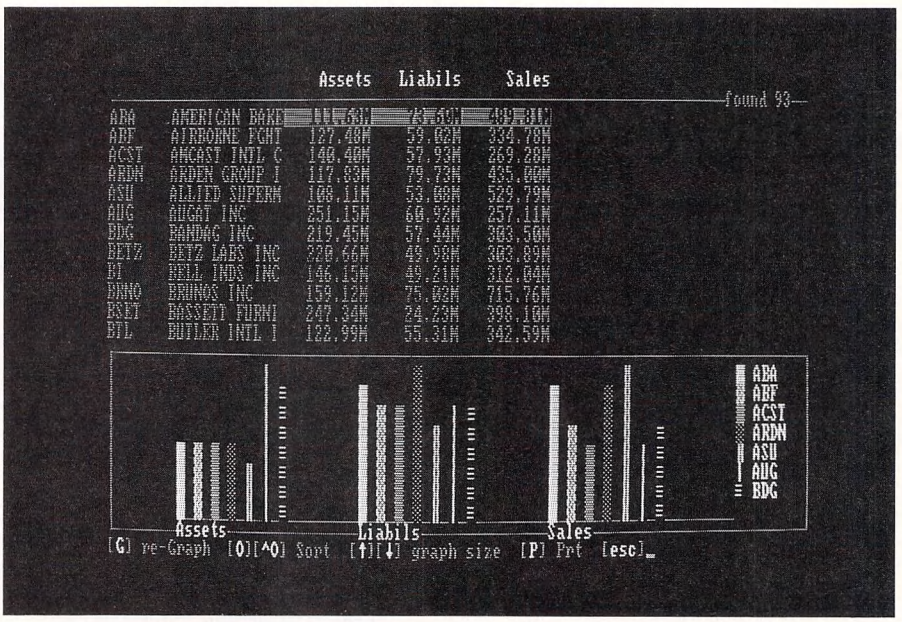
Media: Requires at least one double-sided disk drive.
Copy Protection: Uncopyable; backup disks supplied to registered users for $10 per set.
Required Peripherals: Modem (1200 baud or higher strongly recommended); color/graphics card required for technical charting.
Other Requirements: Minimum 192K RAM.
Optional Items: Color monitor recommended but not required.
System used for test: 640K IBM PC-XT with two disk drives, 20MB hard disk, Persyst Color Combo Card, Okidata Microline 84 printer; running PC-DOS 2.1.
List Price: $495; a $30 demonstration package is available and applicable to purchase price.

Reviewed by William J. Lynott




Assets Liabils Sales
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ABA AMERICAN BAKE 127.48M 59.02M 334.78M
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ARDN ARDEN GROUP I 108.11M 53.66M 529.79M
ASU ALLIED SUPERM 251.15M 60.92M 257.11M
AUG AUGAT INC 219.45M 57.44M 303.50M
BDG BANDAG INC 220.66M 49.98M 303.89M
BETZ BETZ LABS INC 146.15M 49.21M 312.04M
BI BELL INDS INC 159.12M 75.02M 715.76M
BNWO BRINKS INC 247.34M 24.23M 398.10M
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Until recently, computerized portfolio management was available only to professionals. Today, any investor with a personal computer can get in on the action. As more publishers vie for a piece of the market, off-the-shelf programs are becoming increasingly powerful.

Some investment programs are little more than spreadsheet templates that track stock purchases and sales for tax purposes. Others are elaborate packages capable of handling the complex requirements of serious investors or stock market professionals. Active Investor is definitely among the latter.

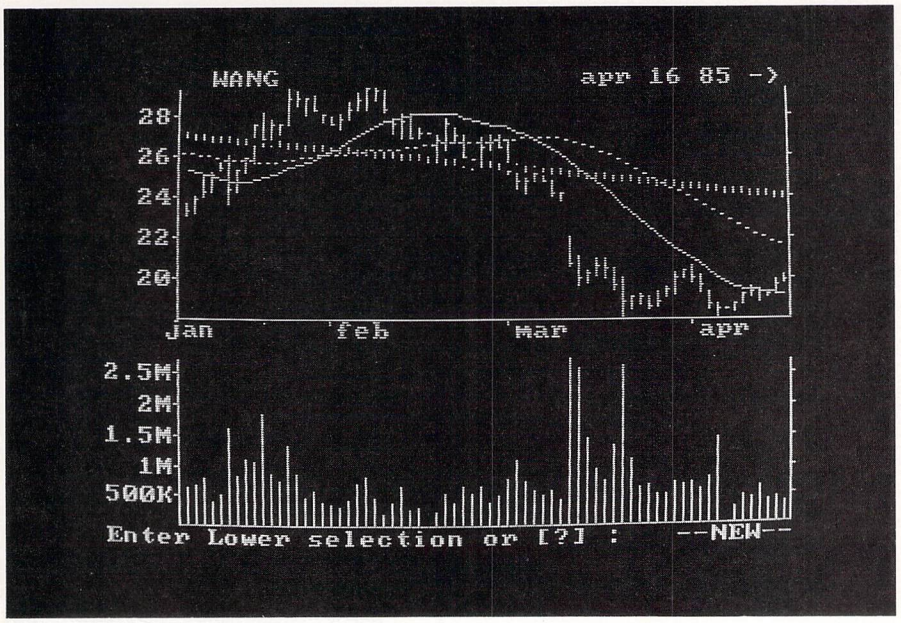
Unless you have a broad portfolio and do a lot of trading, you not only won't need Active Investor, you probably won't be able to afford it. However, if you have substantial investments, do your own research and make your own trading decisions, this package is worth a look.

Generally, stock market investors fit into two groups: those who base decisions on fundamental analyses and those who rely on technical data such as price and volume fluctuations. Active Investor satisfies both, and users may access fundamental and technical online data covering more than 1,600 publicly traded companies.

The Active Investor Series comes on four disks: portfolio management, fundamental analyses, technical charting and communications for accessing databases. The nucleus is the portfolio management disk that can create and track as many as 80 separate portfolios on one data disk.

Portfolio management's main menu is displayed in three segments: Transactions, Reports and Support. The support section creates new portfolios and does disk housekeeping. Transactions record buy or sell activities, dividends, stock splits and cash movement. The report menu generates reports on such things as capital gains or losses, trading history and monthly income.

Moving from module to module re-



quires only a couple of keystrokes. Everything is menu-driven so computer expertise is not required.

With a color monitor, colors are used to emphasize or clarify displays. For example, blue lines on reports indicate holdings that have made profits, while yellow lines indicate losses.

Automatic updating of stock prices and dividends is done online using a modem and the communications software supplied. To obtain your unique ID and password, you activate your subscription using a toll-free number supplied in the package. The cost for automatic updating of your portfolio is $0.03 for one day's worth of information per security. Updates for a 25-stock portfolio would cost $0.75 per day.

Although the portfolio management portion of the system can be updated by manual entry of prices and dividends, I don't recommend using it that way. If you don't use the online service for automatic updating, there are far less expensive investment management packages that do the job nicely with manual input.

Fundamental analysis requires an extra-cost subscription to Value Line's Fundamental Data at $25 per month or their Ratings Data at $40 per month. In Fundamental Analysis mode, you can examine 20 vital statistics for any stock in the Value Line database. Included are such data as assets, liabilities, equity, book value, current yield, plus sales and net income by most recent quarter.

Using the search option in Fundamental Analysis, you may establish any set of criteria involving fundamental data. For example, you could have the program list only stocks selling for under $20 per share, having a current yield of 4 percent or more, and showing price/earnings ratio of 12 or less. Only stocks meeting that criteria would display or print.

Technical Charting functions similarly using high, low, close and volume for each trading day. The program's graphics capability can print bar charts, high/low/close charts and graphs. The cost for technical charting data is $0.03 per quote.

According to the publisher, a typical user maintaining a moderate portfolio will average $20 per month on data access charges. The more sophisticated investor with an extensive portfolio typically can expect to pay about $60 per month.

This package definitely isn't for everybody. However, if you spend more than a few hundred dollars a year in broker's commissions, it may well be a good investment.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

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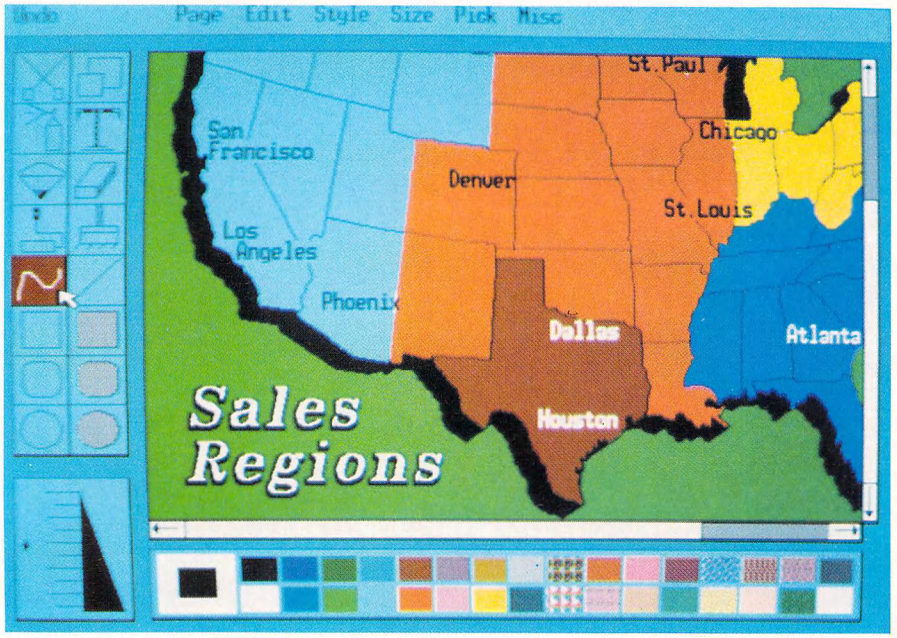
PC Paintbrush

A Freehand Drawing Program

ZSoft Corp.
1950 Spectrum Circle, A-495
Marietta, GA 30067
404/980-1950

Computers: IBM PC, PC-XT, PC-AT, PCjr and 100 percent compatibles.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires one diskette drive.
Copy Protection: None.
Required Peripherals: Graphics display monitor; mouse, joystick or digitizer.
Other Requirements: Minimum 320K RAM; high-resolution displays require more memory.
Optional Items: Enhanced Graphics Adapter.
System used for test: 640K IBM PC with 20MB hard disk, double-sided, double-density diskette drive, Epson FX-80+ printer, Microsoft Mouse and Princeton Graphics HX-12E color monitor.
List Price: $139



Reviewed by James Moran

PC Paintbrush can be used to create freehand drawings or graphic designs with an IBM (or compatible) personal computer. Serious computer users may wonder why anyone would want to use high-powered hardware to create doodles. Well for one thing, it's fun. For another (if you need a "serious" reason), you can do serious design work with this software.

Installing PC Paintbrush is slightly more involved than most programs, but the manual makes it much less threatening than it might be. Unless you've already installed and used a device driver supported by PC Paintbrush (mouse, digitizer tablet or joystick), you'll need to install separately the driver supplied with your "non-standard" drawing device.

One confusing aspect of installing a mouse driver is that the manual may not specifically indicate that Microsoft's Mouse is supported. Two versions of PC Paintbrush, both labeled version 3.0, are available. One may be purchased as freestanding software, and the other is bundled with Microsoft Mouse hardware. Either works perfectly with Microsoft's Mouse, so there's no need for concern.

A separate installation procedure activates the PC Paintbrush "frieze" option, which is a separate program and works independently. After installation, this program automatically attaches itself to DOS. Its primary purposes are printing PC Paintbrush graphics and importing graphs, pictures or text from other programs. One obvious application would capture a Lotus 1-2-3 graph during a 1-2-3 session for subsequent use in PC Paintbrush. With a little imagination, eye-catching freehand drawings could be added to 1-2-3 graphics, with the output sent to a printer or saved on disk for a "slide show."

The "frieze" function also has some impressive reformatting capabilities and can print virtually any PC Paintbrush or captured screen (or screen portion) sideways. It also can reduce or enlarge graphics from a minimum of one inch by one inch to a maximum of two feet by 300 feet.

PC Paintbrush is much like MacPaint for Apple's Macintosh computer. The screen contains drawing tools on the left, pull-down menus along the top and color options along the bottom. Color choices are expanded automatically if an Enhanced Graphics Adapter is installed.

The toolbox is the main component for drawing and consists of numerous icons (pictorial representations) that allow operations such as spray, brush or roller painting, erasure, text creation and line drawing. With these and other tools, an accomplished user can create virtually any graphic or pictorial representation imaginable.

Once created, graphics can be expanded, reduced, cut, pasted and moved. Several text fonts go with the graphics and, like the graphics, can be manipulated through various sizes and spatial orientations (such as tilted or inverted). A user with an artistic bent and a steady drawing hand will find that most operations are best performed with a mouse or digitizer tablet. Although the software supports a joystick, I can't imagine that device being precise enough to be practical.

At first sight, PC Paintbrush looks intimidating, but it is easy to learn. Within a few hours, most users will be comfortable with it, due in large part to an intelligently written and clearly illustrated manual. I examined two versions of the manual. Although one was oriented exclusively to the Microsoft Mouse, they were equally comprehensive.

PC Paintbrush is an excellent software value for anyone interested in freehand graphics. Business users particularly may appreciate the creative possibilities of enhancing standard business graphics such as those provided by Lotus 1-2-3. Users without a business need can simply have fun with the package.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

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Maccountant

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213/452-5636

Computers: Apple Macintosh 128K, 512K and XL; Lisa 2 with MacWorks.
Operating System: Macintosh desktop environment.
Media: Single disk.
Copy Protection: None.
Required Peripherals: Printer.
Other Requirements: None.
Optional Items: 512K upgrade (for 128K Macintosh computers) and external drive (both recommended); hard disk; numeric keypad.
System used for test: 512K Apple Macintosh with internal drive and Apple Imagewriter printer.
List Prices: $275; demo copy available for $15 (refundable with purchase).

Reviewed by Joe Farace

You don't buy accounting software because you like numbers but because you or your business need help with "the books."

By nature, most accounting programs are compromises. To sell enough software to be profitable, a developer must use a generic approach that cannot cover the varying requirements of numerous different businesses. Typical programs use a "cash" basis, which is fine for most cash-oriented retail operations, but isn't necessarily good for "accrual" operations. Surprisingly, I was able (with some help) to set up a service business using "accrual-method" accounting with Maccountant. Part of the credit goes to my partner who kept the books manually, with the rest going to the excellent documentation and friendly support from Digital Etc.

Maccountant's manual assumes a working knowledge of accounting practices. Don't expect to jump right into this program. Take your time. Read the manual carefully. Otherwise, you'll waste considerable time on false starts.

Documentation changes caused me some initial confusion, but an addendum sheet is included in the box. For example, the "Cash in Bank-DSB" entry shown in the manual has been corrected to "Cash in Bank-CRJ." It's a good idea to tape the "Manual Update" into the back of the manual near "Types of Accounting Entries." I also felt funny posting cash to the "Non-Cash Journal," but I've been informed that's been changed to "General Journal" in versions currently being shipped.

The Chart of Accounts has room for more than 2,000 entries, so don't worry about filling it up. There's more than enough room for most small businesses. The documentation emphasizes the importance of starting the program with an error-free Chart of Accounts. Entering data is easy since the program also contains account name suggestions and account numbers. If you make a mistake, the computer beeps, and Maccountant shows you where the error is and makes a guess at what you did.

A few other areas require care because the program abides by the accounting principle that nothing should be erased or changed once it has been officially entered. One area involves entering starting trial balances in the Non-Cash Journal. Once you've closed this file, no corrections of any kind may be made except by adding new entries. This is the computerized equivalent of drawing a line through an error instead of erasing it. The same is true when writing checks, where an erroneous check can be "voided," but the original remains in full view.

Maccountant can print checks, too. The program is fully compatible with Deluxe's No. 1013 checks and No. 1500 envelopes.

Once I entered the Chart of Accounts and end-of-period account balances in the Non-Cash Journal, the rest was easy. A Balance Sheet is available with a single mouse click. It marked the first time I produced a Balance Sheet without hassles and bewilderment. The program also prints other reports including Trial Balance, Daily Cash, Account History, General Ledger, Accounts Receivable and those Financial Ratios that banks love. If you take the time when creating your Chart of Accounts, Maccountant will even print Departmental Income Statements.

The program has versatile export capabilities. Maccountant is compatible with Jazz, Excel, Multiplan and Word, so files may be generated in whatever format's required for creating business forecasts.

If you don't know anything about accounting, Maccountant may not be for you. If you want to take the time to learn some basics, it is like getting a CPA to work on your books for free. One suggestion: before purchasing the full-blown program, order the inexpensive demo disk. Not only will it give some insight into Maccountant's capabilities, but it later can serve as a touchstone to show examples of how entries are made while actually working through the program.

In the world of small business, keeping track of cash flow is the name of the game, and that's where Maccountant can be a big help.

Joe Farace is a writer and photographer from Denver. He is a contributing editor of PhotoMethods *magazine and his reviews of Macintosh software will appear in an upcoming book from Arrays Inc. His CompuServe User ID number is 76703,3060.*

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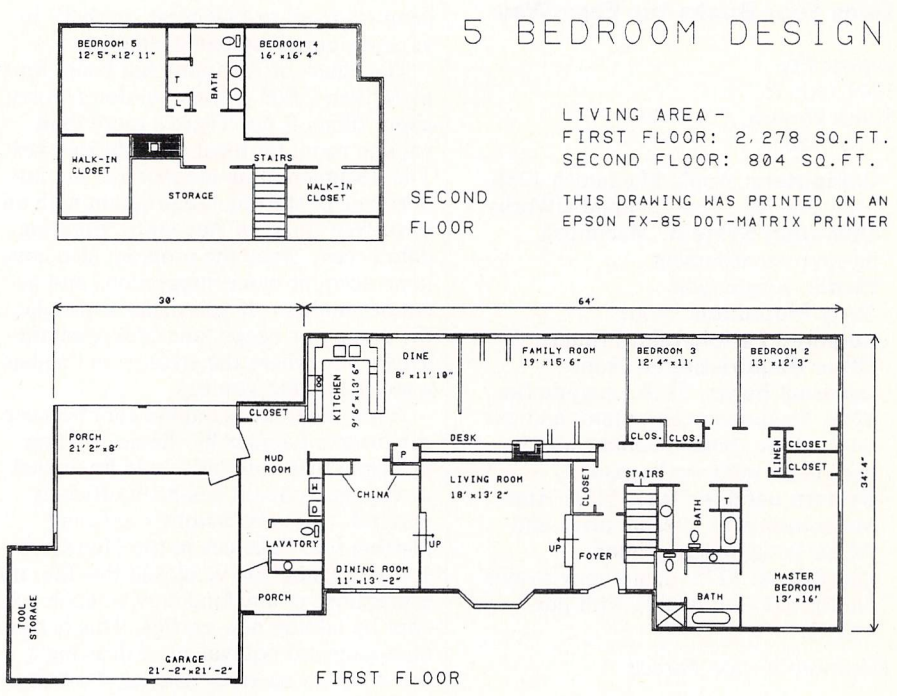
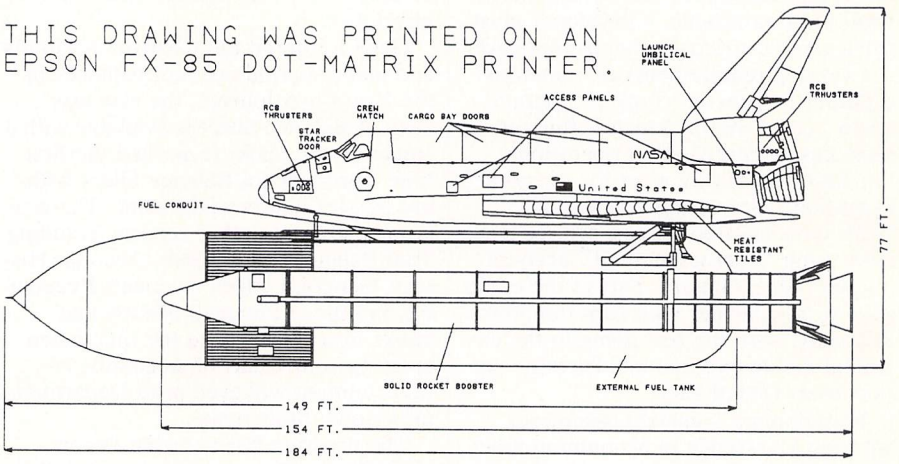
A Low-Cost Easy-To-Use CAD System

American Small Business Computers Inc.
118 South Mill St.
Pryor, OK 74361
918/825-4844

Computers: IBM PC, PC-XT, PC-AT, PCjr and numerous compatibles, including AT&T, Compaq, Columbia, Heath, NCR and Tandy.
Operating Systems: PC-DOS or MS-DOS version 2.0 or higher.
Media: Requires two double-sided diskette drives or one double-sided diskette drive and a hard disk.
Copy Protection: None; can be copied to, installed on and run from working diskettes or hard disk without difficulty.
Required Peripherals: Color or monochrome monitor driven by one of 10 supported adapters, including IBM's CGA and EGA, Hercules Graphics Card, and others; graphics-capable Epson/IBM compatible printer (nearly four dozen models supported) or plotter (more than two dozen models supported).
Other Requirements: Minimum 512K RAM.
Optional Items: Additional diskette drives, hard disk or electronic disk; additional memory; digitizer or mouse strongly recommended (a dozen types and models supported).
System used for test: 640K Compaq Deskpro Model 2 with 8 mHz 8087-2 math co-processor, two diskette drives, 20MB IOMEGA Alpha-10 Cartridge Drive Subsystem (Bernoulli Box), Maynard Electronics' 2MB Accent Expanded Memory Card with Maynard Mouse (emulating Microsoft Mouse), Amdek Color 700 monitor, Epson MX-80IIIF/T printer, Amdek DXY-100 plotter; running IBM PC-DOS 2.10.
List Price: $299

Reviewed by Ernest E. Mau





Many people who might need Computer Aided Design functions are blocked by high entry costs or the complexity often inherent in the software. CAD applications aren't like business and presentation graphics or draw-and-paint pictures. Instead, CAD systems perform drafting, technical illustration and similar tasks, and many specialized CAD packages carry outrageous price tags for software and require costly monitors, graphics adapters and other accessories.

ProDesign II (version 1.2) takes the cost and worry out of many CAD applications, yet it is surprisingly capable. Quickly learned and easily used, it runs on a bare-bones graphics-capable computer, but supports high-performance plotters, printers, displays and digitizers when available.

Installation amounts to copying two distribution diskettes (one holding

sample drawings) and running a simple setup program to select peripherals. Reconfiguration for changing hardware lineups is fast and simple.

On starting, the program displays a blank window covering a quarter of the drawing space. Function keys F1 through F4 move the window around the drawing in three horizontal and three vertical steps that always overlap adjacent steps. Other function keys do such things as directing outputs, loading or saving drawings and symbols.

Most drawing commands are one- or two-key mnemonics. For example, [A] draws a clockwise arc while [Alt-A] draws an arc using vectors. A few commands aren't mnemonic, however, including [X] to save a portion of a drawing, [Y] to erase the screen and [[] to toggle the "rubber band box" function. In all, more than 50 commands are provided.

ProDesign has the common features expected of a CAD package, including drawing of arcs, circles, semicircles, quarter circles, ovals, boxes and straight lines between points. Zooming allows reduction to examine an overall layout or enlargement to work with fine details. It can paint or fill defined areas, rotate drawings, move or copy sections, use up to 16 colors and display or hide a "grid" drawing aid. It also has advanced functions, such as automatic dimensioning, overlays, vector drawing commands, orthogonal vector control (for true horizontals and verticals) and so on.

The selected "cursor" or "crosshairs" can be moved with the keyboard arrows keys or a pointing device. CAD applications almost require some pointing device. A digitizing tablet or pad would be handy for accurate tracings, but I get along nicely with a Maynard Mouse emulating a Microsoft Mouse. I prefer crosshairs to the cursor for critical point positioning, but frequently switch between them.

Locking onto an existing point sometimes is a problem in graphics packages. ProDesign can jump its cursor to the nearest existing point in any direction or use "gravity" to drag the cursor downward to a point. Besides setting points with cursor movements, it can set points at specific coordinates or at a given distance and angle from the cursor location.

ProDesign even provides eight line types in user-selected widths. These include solid, dashed, hidden, center, phantom, dot, dash-dot, border and divide lines needed in drafting or technical illustration.

The current version lacks one crucial feature. It can remove entire lines and drawing sections, but cannot "break" an existing line. Having drawn a line, say for a wall on an architectural plan, it can't simply break into that line to insert a window or door. Instead, the line must be removed and redrawn with the new feature. A break feature is promised for an early 1986 program revision, however.

ProDesign is intended for two-dimensional or planar drawing. It is possible to do isometric or three-dimensional drawing, but the current release offers no practical grids or other aids. A planar drawing can be rotated to simulate a changed viewpoint, but the results don't provide true perspective or isometric renderings. Again, this may change in future releases.

Outputs are remarkably well done. Printouts on an Epson MX-80 were beautifully detailed and among the best I've seen. It is the only package I've had capable of driving an Amdek DXY-100 plotter that's been gathering dust for three years. ProDesign also can print or plot to disk files to avoid tying up the computer. It can export drawings to other systems in IGES (Initial Graphics Exchange Standard), but cannot import drawings from that format. However, it readily imports drawing files in Hewlett-Packard's plotter language.

Once line breaking is provided, ProDesign II will be a great package for planar drafting and illustration. It has features unavailable in some CAD programs costing several times its price and could be ideal for users needing CAD capabilities at low cost.

Ernest E. Mau, a fulltime free-lance writer and Online Today *reviews editor, is based in Aurora, Colo. He is the author of several books and more than 300 articles on microcomputer products and applications.*

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Reviewed by Lindsy Van Gelder

DoctorDOS is billed as a "software surgeon" because it accelerates certain procedures controlled by the notoriously sluggish PC-DOS and MS-DOS operating systems. It replaces the operating system section that normally interacts with the video board, making screen response about twice as fast for things like moving quickly through a large word processing file.

As a bonus and a real boon to fast typists, DoctorDOS enlarges the keyboard buffer from 15 to 160 characters, allowing more characters to be typed ahead without getting a rude beep. People with Compaqs or with plug-in "soft-touch" keyboards also can give their keys a satisfying audible click.

These are handy features. If DoctorDOS were half its price, I'd recommend it, but at $49.95, it seems less of a bargain. It is copy-protected and allows installing only two copies, although it can be deinstalled and reinstalled when necessary.

It doesn't speed disk related procedures, so there's no relief for people who spend most of their waiting time watching the little red disk drive light. It apparently doesn't support any program that creates its own keyboard BIOS or that bypasses the operating system. For the price, I've come to expect full-featured, no-sweat utilities like Sidekick.

DoctorDOS is better than many public domain utilities, but it is certainly not going to become another Sidekick.

Lindsy Van Gelder is a New York-based free-lance writer and a contributing editor of Ms. *magazine. Her CompuServe User ID number is 70007,1416.*

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PC WORLD BOOKS
THE COMPLETE IBM PERSONAL COMPUTER
THE AUTHORITATIVE GUIDE TO HARDWARE FOR EXPANDING THE IBM PC, XT, AT AND COMPATIBLES
SETH NOVOGRODSKY, FREDERIC E. DAVIS AND THE EDITORS OF PC WORLD

If you aren't sure of just how to proceed with the expansion of your PC system, you'll find some worthwhile help in these pages.

The Complete IBM Personal Computer

By Seth Novogrodsky
and Frederic E. Davis
PC World Books, 1985
276 pages, $16.95 (softcover)
Reviewed by William J. Lynott

It was only three years ago, but in personal computer terms, that was still the dark ages. I had just bought my IBM PC with two floppy-disk drives and a whopping 128K RAM — surely enough to handle all of my computing requirements in the foreseeable future. Or so I thought.

On the road to my present 512K RAM and 20 megabyte hard-disk storage, I also have accumulated a colorful assortment of peripherals and miscellany.

That's probably a typical pattern: the purchase of a basic computer system followed by an irrepressible urge to expand. If you find yourself in that latter stage or approaching it, *The Complete IBM Personal Computer* may well prove to be a valuable source of counsel for you. This book divides the hardware available for expanding and enhancing the IBM family of PCs into 11 chapters crammed with helpful information.

The opening chapter provides an overall look at the physical setup of the PC family, how expansion hardware is installed, and a little of the technical aspects of the expansion process. A number of clear photographs and some straightforward text will help to calm any trepidations that you may feel about poking around the insides of your precious PC.

Beginning with Chapter 2, devoted to memory expansion boards, the book is organized into categories of expansion products. Separate chapters cover display boards, monitors, printers, storage media, communications, input devices, music synthesis, special purpose hardware and power protection equipment. An appendix printed on blue pages lists names and addresses of hundreds of manufacturers of peripheral hardware.

Each chapter begins with a brief discussion of basic theory involving the type of hardware covered. Names of manufacturers and descriptions of their products are provided, although there is no attempt to provide critical evaluation. There are no pricing comparisons — a good decision given the present volatility of the market.

Most of the information involving performance and special features is of the type that you will find on company promotional literature and specification sheets. While much of the instructional material is the sort of thing that you would expect to find in the owner's manuals of the individual products, it should be helpful if you want to learn as much as possible about a class of peripheral before you make a buying decision.

Of course, *The Complete IBM Personal Computer* suffers from the same shortcoming as all "roundup" type books that cover products in a rapidly changing industry. Often, by the time a book such as this reaches print, major new products and innovations are announced. The new hard disks that are self-contained on an expansion card are one example. This exciting new product isn't even mentioned.

The information that *The Complete IBM Personal Computer* does contain, though, is authoritative and helpful. If you aren't sure of just how to proceed with the expansion of your PC system, you'll find some worthwhile help in these pages.

William J. Lynott is president of W.J. Lynott Associates, a management consulting firm in suburban Philadelphia. His CompuServe User ID number is 70007,420.

Learning Microsoft BASIC for the Macintosh

By David A. Lien
CompuSoft Publishing, 1985
457 pages, $19.95 (softcover)
Reviewed by James Moran

I've always been of the opinion that once you've seen one BASIC you've seen them all. Anyone who has a good grasp of BASIC — no matter what machine it was written for — can utilize the BASIC of another manufacturer. Of course, there may be some differences among versions, but most differences are in style rather than substance.

Now, please, don't write me that your favorite version of BASIC is written in tightly structured assembler and that it runs circles around all other BASICs. That's not the point. All BASICs are pretty much the same animal, and the only differences that count are those that relate to a specific use for a specific computer.

Learning Microsoft BASIC for the Macintosh is clearly written. It struck me as "user-friendly," and I think it makes an excellent tutorial for Mac users who need to write their own programs.
er before now, this book will carry you from novice tremors through old-hand sureness. Those who already are on speaking terms with one of the hundreds of BASIC versions will find they can skip most of this book and concentrate on the machine-specific (Macintosh) uses of version 2.x of Microsoft BASIC.

The book is divided into 51 chapters so readers can digest the subject in bite-sized segments. There's the usual "this is a Macintosh and here's how it works" section (five chapters), followed by 22 chapters of BASIC fundamentals. The text is clear, and author David Lien keeps the illustrations simple but useful.

The book continues with sections about string processing, display formatting for input and output functions, and advanced mathematical functions. There is a particularly lucid explanation of variable precision accuracy in one of the math chapters. Since some methods of calculation can lead to imprecise answers, such an explanation can help keep "surprising" results out of BASIC calculations.

Final sections include discussions about the uses of arrays and a group of the more esoteric BASIC functions, such as PEEKs, POKEs and logical operators. A useful discussion on debugging closes the text portion of the book.

Learning Microsoft BASIC for the Macintosh is clearly written. It struck me as "user-friendly" and I think it makes an excellent tutorial for Mac users who need to write their own programs.

James Moran is vice president of Programming Service Corp., a Midwestern consulting and research firm. His CompuServe User ID number is 70007,2253.

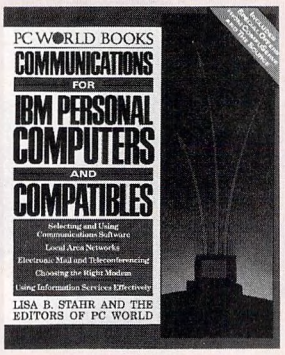
Communications for IBM Personal Computers and Compatibles

By Lisa B. Stahr and the Editors of *PC World*
Simon & Schuster, 1985
314 Pages, $16.95 (softcover)
Reviewed by Lindsy Van Gelder

If you have an IBM PC or compatible and you want a broad overview of the kinds of hardware, software, networks and services that exist out there in Communicationsland, you can't find a more professional guide than this one by Lisa B. Stahr and the editors of *PC World* magazine.

But if I can judge from the kinds of questions that new-to-computing friends and colleagues ask me, the days of the broad overview may be over. Thanks to an increase in computer-related articles in mainstream publications and the fact that the average consumer nowadays probably has at least one friend or colleague with a computer, most new users have a general idea of what kind of telecommunicating they want to do.

What they need are trouble-shooting specifics — and *Communications for IBM Personal Computers and Compatibles* doesn't have enough of them. For example, while we do learn in a chapter on micro-to-micro connections that it is possible to hook your IBM PC up to a laptop, such as the Radio Shack Model 100, we don't learn the things that we *really* need to know — like how to use IBM's "MODE.COM" and the Model 100's "Telecom" program to effect the hookup. We learn that your Hayes modem can talk to another modem, but not how to command it to let you and the other party switch between voice and modem communications. It is possible that such picayune details are beyond the scope of any book and that people should get such information from user groups or friends, but I think that's also one reason why the computer book business is in such a slump.



For people who don't have an overview already, I'd recommend this book.

On the plus side, Stahr and her colleagues are journalists, and they write with clarity. Their index is awful, but if you read the whole book, you'll come away with a good understanding of such things as what it is like to log on to a typical bulletin board (and what it takes to start your own), what features to look for in communications software, what types of local area networks are available and what systems offer teleconferencing. An update page provides information that wasn't available to the authors at press time, such as what manufacturers offer 2400 baud modems.

For people who don't have an overview already, I'd recommend buying this book, taking advantage of the certificates and then joining an online special interest group, such as CompuServe's IBM Novice Forum. That's where you'll find the answers to the niggling little nuts and bolts specifics that Stahr and her colleagues don't cover.

Lindsy Van Gelder is a New York-based free-lance writer and a contributing editor of Ms. *magazine. Her CompuServe User ID number is 70007,1416.*

Microsoft Macinations:

An Introduction to Microsoft BASIC for the Apple Macintosh

By Mitchell Waite, Robert Lafore and Ira Lansing
Microsoft Press, 1985
528 pages, $19.95 (softcover)
Reviewed by James Moran

Microsoft Macinations is a tutorial on Microsoft BASIC, the only BASIC available for the Apple Macintosh. This book's claim to fame is that its publisher is the Microsoft Corp. — the same people who developed Mac's BASIC. The authors — The Waite Group, *et al.* — have been writing technical books for quite a while, and a knowledgeable user would expect — and gets — an accurate and readable text.

This book, on Microsoft BASIC 2.0, is divided into two parts. The first half concentrates on BASIC fundamentals. Beginners are given a quick introduction by way of a chapter on preliminaries that includes how to access the BASIC interpreter with the Mac.

The remaining chapters in the first section will benefit novices and advanced users alike. Users first learn how to create, edit and save programs that they will be writing. Chapters continue with discussions on variables, logic control, subroutines and arrays, and string manipulation. By the end of the book's first half, readers will be familiar with the fundamentals of BASIC and ready to use that information to program through the Mac's "user interface."

Learning to write programs for the interface is the primary emphasis of the second half of *Microsoft Macinations*. Those menus, windows and buttons (on the Mouse) that made the Mac so revolutionary when it was first introduced are thoroughly explored.

This final section, subtitled "Advanced BASIC for the Macintosh," is a book within a book (over 200 pages) explaining how the Mac's user interface can be manipulated. Using these programming techniques, users can produce programs that are commercial in appearance and function.

Other information shows how to make use of the QuickDraw routines that are used in the Mac's graphics structure. This 400-program collection located in the Mac's ROM has impressive capabilities for high-speed graphics, and the chapter detailing QuickDraw is one of the book's best.

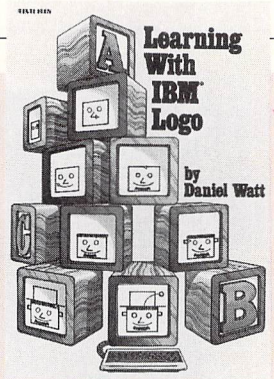
File processing, animation and dialogue boxes also are included in the second part. Finally, the Mac's multi-voice sound capability receives a detailed explanation, including a helpful comment about a hardware flaw in some Macs that causes poor sound reproduction.

Microsoft Macinations is a hefty volume to tote around, but it contains no fat. The instruction is clear and obviously based on a lot of hands-on experience. Of the Macintosh BASIC books I've read so far, this is one of the best.

James Moran is a free-lance writer and frequent contributor to Online Today. *His CompuServe User ID number is 70007,2253.*

Learning With IBM Logo

By Daniel Watt
McGraw-Hill, 1986
325 pages, $19.95 (softcover)
Reviewed by Annette Hinshaw



Learning with IBM Logo is useful only with hands-on experiments.

Learning With IBM Logo is an excellent workbook, designed to be used interactively with the computer.

The most extraordinary thing about this book is that it can be used with children as young as five (with adult help), youths 10 and older (on their own) and teachers (amateur or professional). Watt accomplishes this multipronged approach by highlighting the text with charming cartoon illustrations and using smaller type for tips to teachers.

Logo is a discovery language. Children who learn it discover logical analysis and basic geometry, all in the pleasant task of drawing pretty pictures with turtle graphics. Watt presents Logo as an unfolding method for making the turtle do what the programmer wants. Essential facts, such as the number of degrees in a circle, may not be revealed until the user has had ample time to play with Logo commands and find out what they do.

Watt introduces new ideas so gradually that they are never threatening. By the end of the book, he exposes the student to loops, conditional branching and variables, as well as more difficult tasks such as recursion and debugging. Most of the text is devoted to graphics, but using Logo for playing games and writing poetry is also presented.

Watt intrigues the reader by offering progressively more complex problems. He challenges by letting the programmer discover solutions for himself, with only a few hints.

Children will like this book because the author doesn't talk down to them, as is so often the case with computer books aimed at the younger crowd. Rather, he is a partner in their learning, opening the gate into a fascinating new world. Watt's sensible advice to helpers and his flagged "Pitfalls" and "Powerful Ideas" should enable any adult — even one who is a computer novice — to discover this world along with the child.

Although the edition I reviewed is for IBM Logo, other versions of the book are available for Apple and Commodore computers. You can also buy a disk of utilities and games used in the book for $16.95.

Logo is a proven way to introduce children to computers. *Learning with IBM Logo* is useful only with hands-on experiments, but if you want to draw your child into the excitement of computers, it is an excellent map for an engaging exploration.

Annette Hinshaw is a free-lance technical writer and computer operations trainer in Tulsa, Okla.

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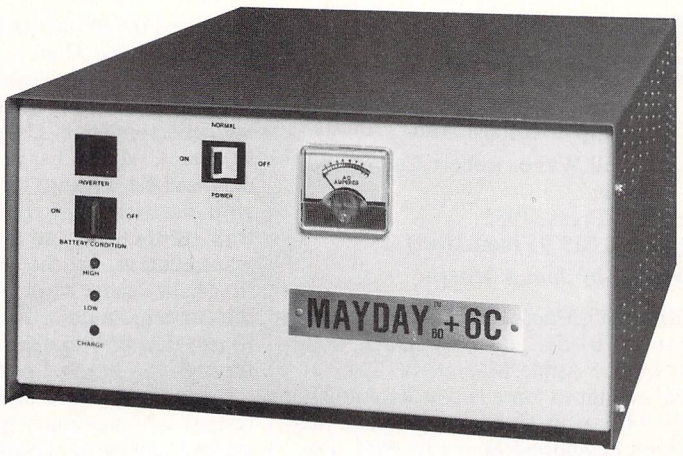

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Avatex 2400 Modem

E+E DataComm has introduced the Avatex 2400 PC Modem, a true half-card internally mounted 2400-baud modem for the IBM PC and compatibles.

Selling for $459, the Avatex operates at 0-300, 1200 and 2400 bps. Features include non-volatile memory, in which options selected remain in memory when the computer is turned off, call progress detection and status reporting. For information, contact E+E DataComm, 2115 Ringwood Ave., San Jose, CA 95131-1725; 408/263-1833.

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Getting Hyper

HyperACCESS from Hilgraeve Inc. is an IBM PC-compatible communications program.

The program can be used to access information utilities including CompuServe, computerized services, bulletin boards, micros or mainframes. Any auto-dial, acoustic-coupled or direct-connect modem, including 2400 baud, may be used. Selling for $149, HyperACCESS transfers files error-free at 1K per second.

For information, contact Hilgraeve Inc., P.O. Box 941, Monroe, MI 48161; 313/243-0576.

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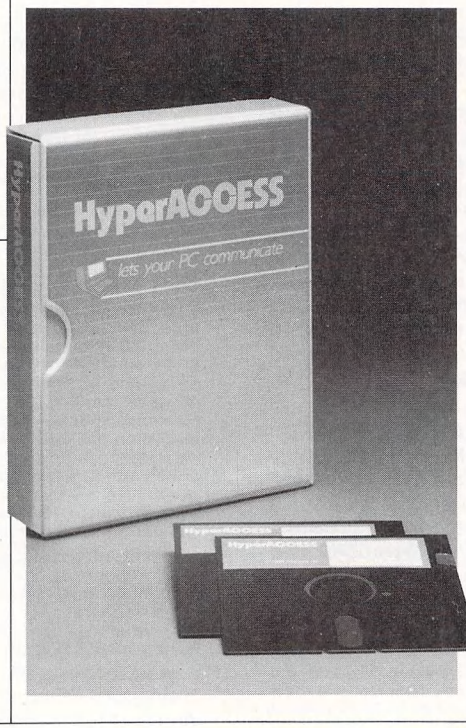

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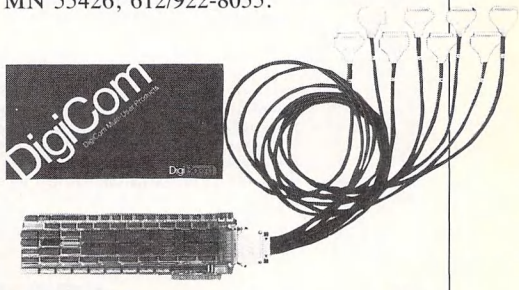
Equipped with either four (Digicom/4) or eight (Digicom/8) asynchronous ports, the unit will enhance computer speed by controlling the I/O interrupts with special board-level firmware. The product sells for $429 for the four ports and $649 for the eight ports.

For information, contact DigiBoard Inc., 6751 Oxford St., St. Louis Park, MN 55426; 612/922-8055.



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Portable Protection

Electronic Specialists has expanded its line of computer protection products to include the Modem/Power/Static Pac for the traveling portable computer.

Combining Broadband AC power filtering, extended range spike suppression, modem RF filtering, modem spike suppression and a static discharge plate, the unit is compactly packaged and ready to travel anywhere the portable computer may be used. Retail price is $199.95.

For information, contact Electronic Specialists Inc., 171 S. Main St., Natick, MA 01760; 800/225-4876 or 617/655-1532.

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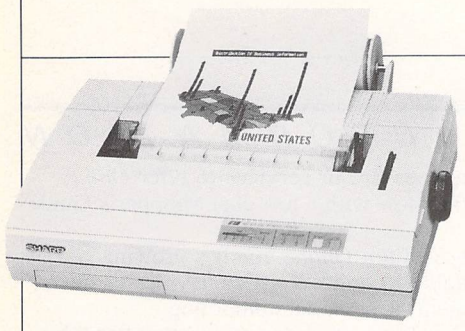

Color Ink Jet Printer

Sharp Electronics Corp. has introduced a compact color ink jet printer with many applications in computer-aided design and manufacturing, cartography, art and business presentation graphics.

Selling for $1,495, the JX-720 printer's four ink cartridges of yellow, cyan, magenta and black can be combined to produce up to 256 basic color combinations. The unit has an automatic printhead-cleaning station that minimizes nozzle clogging problems.

For information, contact Sharp Electronics Corp., 10 Sharp Plaza, Paramus, NJ 07652; 201/599-3856.

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Portfolio Evaluator

The Quant IX Portfolio Evaluator from Quant IX Software is quantitative investment software for the IBM PC, PC-XT, PC-AT and compatible computers.

Features include five quantitative valuation models, cash flow analysis, diversification index, what-if testing, security cross-reference, tax planning and total portfolio accounting. Retail price is $295 or $45 for a full-featured demo with manual.

For information, contact Quant IX Software, 5900 N. Port Washington Rd., Suite 146-A, Milwaukee, WI 53217; 414/961-1991.

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TRS-80 Calculator Program

Sum-Up from AlphaBit Communications Inc. is a new calculator program for the TRS-80 Models 1, III and 4.

Using just 5.5K of memory, Sum-Up is a quick calculator that pops up over almost any application program and does four-function math. It also contains a decimal to hexidecimal converter. Retail price is $24.95.

For information or to order, contact AlphaBit Communications Inc., 13349 Michigan Ave., Dearborn, MI 48126; 313/581-2896.

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Relational Database

PC-File/R, a relational database with built-in word processing, has been released by ButtonWare Inc.

Selling for $149, PC-File/R offers pop-up help screens giving users answers to questions without consulting the manual. Other features include a Find command, calculated fields, smart key macros and more.

For information, contact ButtonWare Inc., Box 5786, Bellevue, WA 98006; 206/454-0479.

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Failsafe

Elgar's Failsafe protects computers from power failure 24 hours a day, seven days a week.

The unit operates in conjunction with the computer and Elgar's SPF and SPR Uninterruptible Power Systems. When the utility power fails, Failsafe is activated to save files and shut down the system in an orderly manner.

For information, contact Elgar, 9250 Brown Deer Rd., San Diego, CA 92121; 800/854-2213 (nationwide) or 619/450-0085 (in Calif.).

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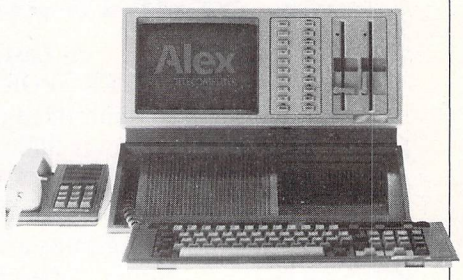

Desktop Telecomputer

The Alex Telecomputer from CompuShop Inc. is a work station that combines a personal computer and a telephone system into one desktop unit.

Described as a "work processor," Alex is able to collect, analyze and communicate information through a single integrated source. Users can simultaneously compute and telecommunicate with the touch of a single button.

For information, contact CompuShop Inc., 9333 Forest Ln., Dallas, TX 75243; 214/783-1252.

GO EBB or circle 34 on the Reader Service Form.

Performance Monitor

Sakata U.S.A. Corp. has introduced the Performance Monitor (Model SC-300P), a CRT color monitor that includes all the newest advanced features and technological advances.

Features of this RGB super high-resolution CRT include exceptionally easy-to-read text, distinctive color graphics, a long, persistent, etch nonglare tube and a display of 800 dots horizontally by 400 dots vertically.

For information, contact Sakata U.S.A. Corp., 651 Bonnie Ln., Elk Grove Village, IL 60007; 312/593-3211.

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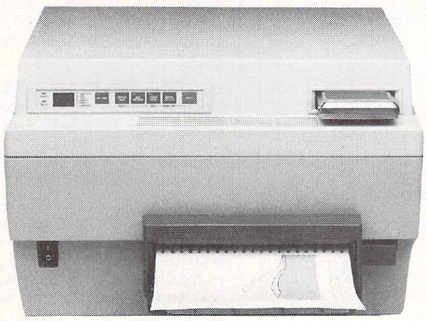

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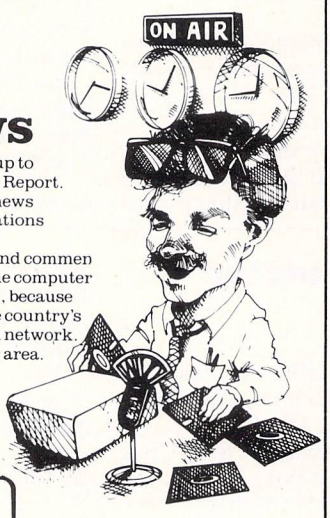

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If you have hardware, software or services to offer *Online Today*'s readers, let them know with a low cost Shopper's Guide listing.

For only $85, a listing will tell *Online Today*'s growing readership what is available to improve efficiency, lower costs and increase the enjoyment of personal computing.

Listings are classified in four categories: Software, Services, Consultants and Retailers. As each listing is received, it will be published in the next available issue of *Online Today*.

Each listing costs $85. This covers the general listing information as well as a 40-word description of the product or service. Additional words are $15 for up to 15 words. Listings that run for three or more consecutive issues earn a 10 percent discount. Payment *must* be received with listing information.

The following is a guide to the type of information to include in a listing:

Software:
Product name; author and/or company's name; mailing address; telephone number; CompuServe User ID number; up to 40 words describing your products.

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Consultants:
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Company name; individual contact name; mailing address; telephone number; CompuServe User ID number; up to 40 words describing your products and services.

You may use the enclosed card when ordering your ad or mail your information with payment to *Online Today* Shopper's Guide, P.O. Box 639, Columbus, Ohio 43216-0639.

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505 Beach Street • San Francisco, California 94133 • 415/928-2800

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Shopper's Guide

Listings are classified under four categories: Software, Services, Consultants and Retailers. As each listing is received, it will be published in the next available issue of *Online Today*.

Each listing costs $85, and covers the general listing information as well as a 40-word description of the product or service. Additional words are $15 for up to 15 words. Listings that run for three or more consecutive issues earn a 10 percent discount. Payment MUST be received with listing information. The following is a guide to the type of information to include in the general listing information section.

Contacting the Editors

If you have a question or comment about editorial material appearing in *Online Today* magazine, you may write to:

Letters to the Editor
Online Today Magazine
5000 Arlington Centre Blvd.
Columbus, Ohio 43220

You may also send editorial comments through the Editors' Feedback section of *Online Today Electronic Edition* (GO OLT-30 on the CompuServe Information Service).

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If you need back issues, please send a letter stating the issue date(s) with a check for $2.00 per copy, which includes postage and handling.

If you are interested in purchasing a large quantity of back issues, please send us a written request to determine the price.

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For free information on products or services in this issue of *Online Today*, fill in your name, address, zip code and phone number. Then circle the number that corresponds to the number of the advertisement or article in which you are interested.

CompuServe subscribers can request information electronically by entering GO EBB at any prompt.

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3	23	43	63	83
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May issue, not valid after August 1986.

Anticipating The Next Wave

I'm ready, I'm anxious — there are times when I'm even impatient — for the Next Wave of our computer communications medium.

Now, don't get me wrong. So far, what we've had on these networks has been wonderful. When the electronic chatter is good, we've made friends with each other. We've gotten to know a little about what each other thinks in ways that conventional communications would not have allowed. And when you consider that hardly anyone was online just a half dozen years ago, the growth of this kind of digital talk is awe-inspiring.

But we all know that when the talk is bad, the networks are narcissistic, preoccupied with themselves. Our communications center around the quality of our communications — the responsiveness of the data lines, the virtues of the various terminal programs. And for conversational partners, we're drawn to those who are farthest away, like a ham radio operator collecting call letters from distant acquaintances.

Of course, there's nothing inherently *wrong* with that — and I still get a charge out of linking up with someone in a part of the world I've never chatted with before.

But it still leaves me hungry for The Next Big Thing.

Not long ago, I finally wore down the patience of an old friend who had smiled and nodded through four or five years of my enthusiastic monologues about the glories of the electronic world. With a mischievous glint in his eye, he sniffed and said, "OK, but what do you like *least* about these networks?"

Hmmmm.

I think it is, I said, that The System tends to be "bigger" — more noticeable, more influential, more demanding — than the people who use it. There's nothing nefarious here, I hastened to add, no force moving to systematically dehumanize us. We've come this way naturally. It's just that all these computers are what we have in common. In the lulls in our computer conversations, we talk about them as naturally as parents talk about children at PTA meetings. In other words, on our less imaginative nights, we are the vehicles by which computers talk about themselves.

Now, before I go roaring off on a tangent, let me say that I think this emphasis on things technical has been extremely important to our online world's growth. For instance, the rise of computer-oriented forums has played a major role in the increasing sophistication of computer users. In these forums, we've learned programming techniques, how to find and evaluate application software and whom to ask about specific problems.

Moreover, the forums — unlike many of the software and hardware companies themselves — have evolved to keep pace with their members' changing needs.

On CompuServe, Jim Horn's Texas Instruments Forum is a perfect example. Here was a special interest group set up to serve users of Texas Instruments' home computers. It started out as most forums do, with public domain software, and news flashes for the manufacturer and third-party vendors.

But when TI announced it was dropping its home computers, the TI Forum did not simply disappear. On the contrary, it became "the largest computer orphanage in existence," says Ron Albright, a TI forum administrator who has written a book on the subject called *The Orphan Chronicles*.

The TI Forum — and many others that strive to serve orphaned computers — developed a life of its own, apart from Texas Instruments and its dealers. It changed its course to meet the new needs of abandoned believers.

Stories like these have made data communications the first real *application* for small computers — building the ever-expanding computer users guide electronically.

But, again, that's not enough. Like television and print, our medium can be used for exchanging all kinds of ideas. So far, we've scratched the surface.

Recently, an education survey caught my eye. It found that the number of incoming freshmen planning to major in computer-related subjects has dropped 50 percent in two years. But, that doesn't mean that students are no longer interested in computers. On the contrary, says UCLA Professor Alexander Astin, students now are "inclined to view (the computer) as a tool for use in other fields," rather than as a career in itself.

Nowhere is that more true than here online, and it behooves us to encourage experimentation with our medium — particularly among artists.

And, in fact, as the pioneers of CompuServe's "Home Services" forums can testify, we've already begun.

For instance, what would graphic artists do with our medium? Establish electronic galleries of their work, where anyone with the proper software could download their copies? Well, have you checked into the Computer Art Forum lately (GO ARTSIG)? That's just what they're doing. And many other forums now are setting up data libraries for artwork.

How about creative writers? Would they use our medium to experiment with storytelling, perhaps many "multi-user" stories or those that have many different endings depending on your choices? Well, what do you know — the Literary Forum (GO LITFORUM) already has started exploring that.

Could musicians use this medium? You bet. Many computers have interfaces for music-making — and they were on the market for about two minutes before the online community got involved. Just look at the data libraries of the Orch-90 Music Forum (GO ORCH-90). It has hundreds of musical scores for a score of systems — all ready for downloading.

Now all we have to do is keep the spirit alive — by providing an atmosphere for challenges. And that's easier than you might think.

Online one night, I ran into Bernie DeKoven, one of the most creative of the computing community's game designers, and he talked about his method for coming up with things that have never before been seen on computer screens.

DeKoven, who is not a technical wizard, would sit at the keyboard with an expert programmer. As they designed the game, DeKoven would allow his imagination to run wild, pointing out all the possibilities in the "Wouldn't It Be Nice If It Did This" Department. The programmer, reacting to Bernie's daydreams, would use his own skills to try to bring the best of the lot to life.

"The important thing," says DeKoven, "is not to say 'we can't.' "

That's not a bad philosophy for our own electronic laboratory.

Charles Bowen is a contributing editor of Online Today. *His CompuServe User ID number is 70007,411.*

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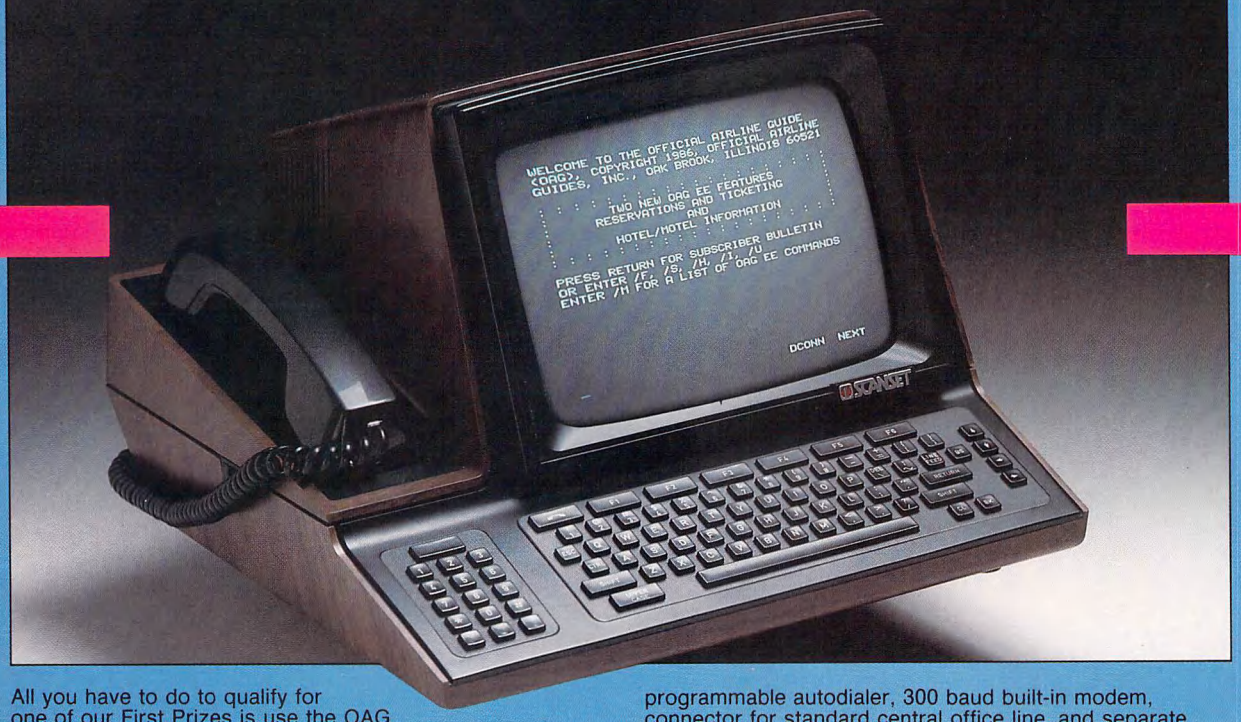
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A word to the wise: act now to win your FREE Scanset!
Remember . . . this contest closes 5/31/86! Winners will be published in the August issue of *Online Today*. So don't delay!

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1. Five (5) Scanset Terminals will be awarded to the first place prize winners. One (1) Scanset Terminal and 5 free hours of OAG Electronic Edition usage on CompuServe will be awarded to the grand prize winner.
2. To qualify for first place prizes, simply use the OAG Electronic Edition on CompuServe during the month of May. Your CompuServe subscriber ID will automatically be entered in the random drawing or, type or neatly print your name, address, phone number (including area code) and your CompuServe subscriber ID on a 3 x 5 post card. Winners will be chosen in a random drawing conducted by A.C. Nielsen on or about June 30. Odds of winning depend on number of entries received.
3. To qualify for the grand prize, in an essay of 180 words or less tell us how the OAG Electronic Edition saved you money. Type or neatly print your essay on 8 x 11 paper. Place your name, address and phone number on the upper right-hand corner. OAG must receive entries by May 31, 1986. Entries will be judged on or about June 30, 1986 by A.C. Nielsen, an independent judging organization on the following criteria: a) writing style (25%); b) originality to the theme (25%); c) persuasiveness (25%); d) appropriateness to the theme (25%). Decision of the judges is final. Winners will be notified by mail.
4. All essay entries and 3 x 5 post card entries must be mailed separately with the appropriate postage affixed to: Official Airline Guides, CompuServe Promotion, c/o Electronic Publishing, 2000 Clearwater Drive, Oak Brook, IL 60521. OAG is not responsible for lost, late, misdirected or destroyed mail.
5. Six (6) Scanset Terminals will be awarded. The Scanset is a compact video terminal which includes a built-in quality telephone, programmable autodialer, 300 baud built-in modem, connector for standard central office line, and separate lines for phone and terminal. Retail value of Scanset $800, value of OAG Electronic Edition surcharge up to $160; maximum total value of all prizes is $4,965. One prize per family or household. Taxes on prizes are the sole responsibility of the winners. Prizes are transferable at winner's request. No substitution or cash equivalent of prize permitted. Free usage must be completed by September 30, 1986.
6. Game is open to any U.S. resident who is a regular CompuServe subscriber as of March 1, 1986, and is 18 years of age or older at time of entry. Employees of OAG, CompuServe, their affiliates, subsidiaries, and families of each are not eligible. All federal, state and local laws and regulations apply. Void in Vermont and where prohibited.
7. Prize winners may be required to execute an affidavit of eligibility within 15 days of notification. Noncompliance within this time period will result in disqualification. In the event of disqualification, an alternate winner will be selected. By acceptance of their prizes, winners consent to use their names and/or likenesses for purposes of advertising and trade by the sponsor without additional compensation. Essay entrants consent to publication of their entries without compensation.
8. Prize winners will be published in the August issue of CompuServe's *Online Today*. For a list of prize winners, send a stamped, self-addressed envelope to the Official Airline Guides (see address in rule 4).

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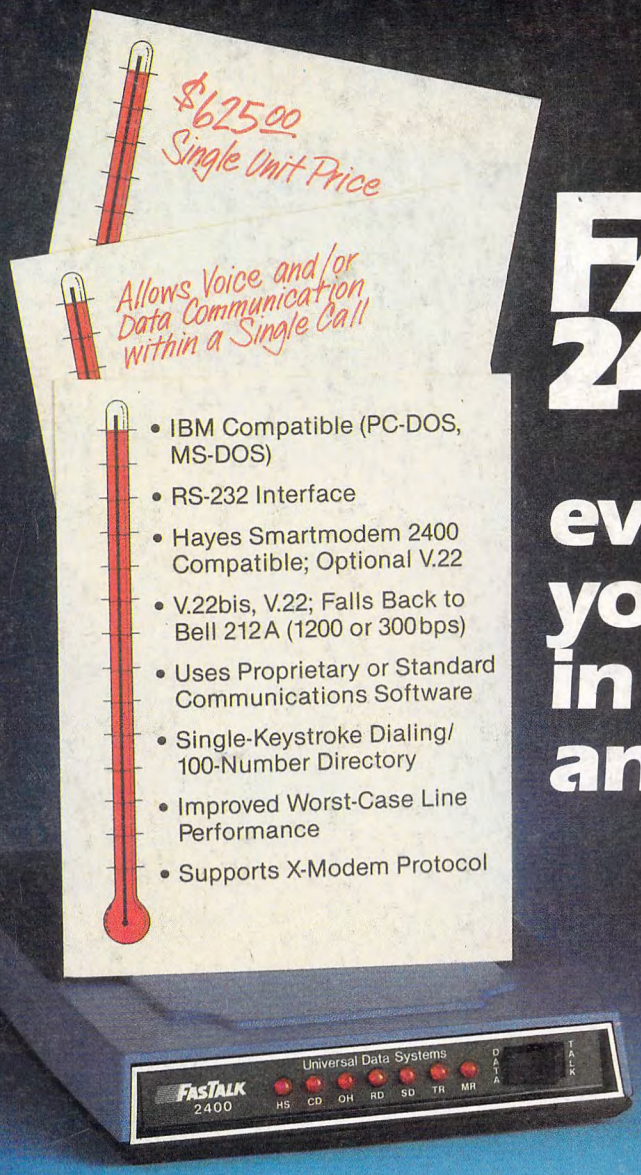
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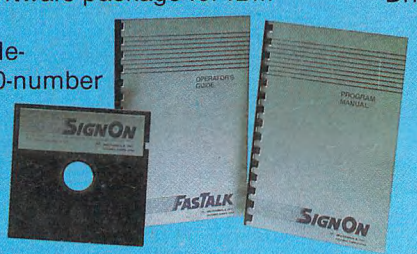

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